

Automotion produce a wide range of fasteners designed for application where it is important that fasteners are not separated from equipment (e.g. cover panels etc). This is now important to ensure that equipment complies with Machinery Directive 200642/EC - requiring that fasteners remain attached to fixed guards or equipment when guards are removed.

Our captive panel screws are manufactured mainly from stainless steel (A2, AISI 303 grade), but they can also be produced in stainless steel (A4, AISI 316), aluminium, brass or zinc-plated steel.

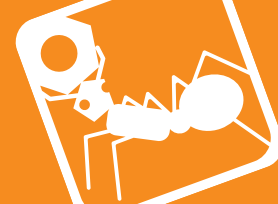
Many finishes can be applied - black-oxide finish, anodizing etc.

The main options are as follows:

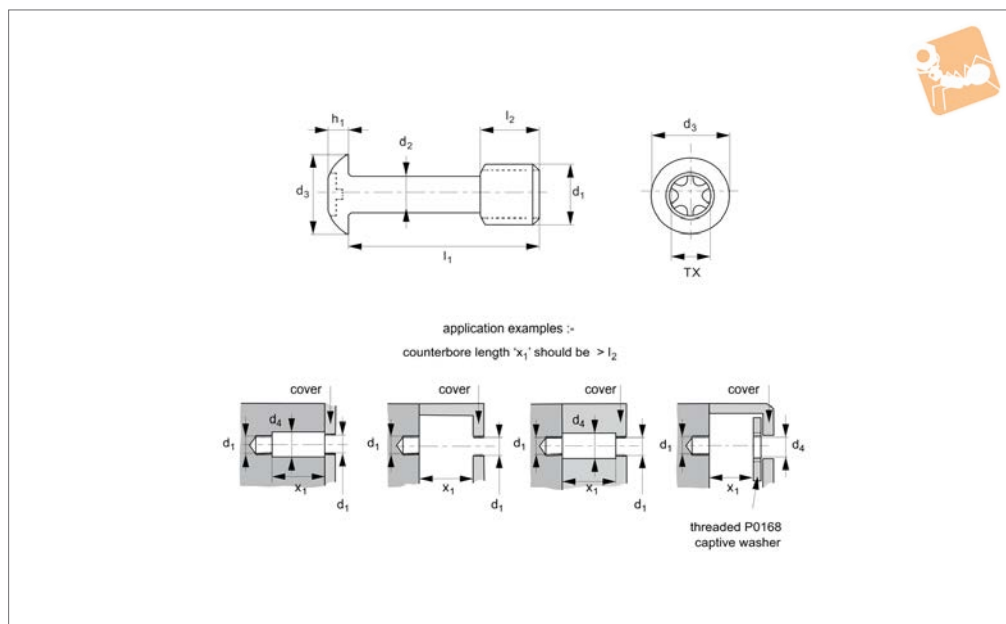
Finish	Notes
Black Chrome (MIL-C-1458B)	Black chrome is a hard, non-reflective coating which is resistant to abrasion, heat and corrosion. The black chrome surface is a dull, dark grey and may be waxed or oiled to darken surface.
Black Oxide Coating (MIL-C-13924B)	Black oxide is a uniform black coating for ferrous metals. Generally it is considered a decorative coating and provides only very limited corrosion protection under mild corrosion conditions.
Cadmium	Cadmium is a bright, silvery white plating. Supplementary treatments for Type II can be golden, iridescent, amber, black or olive drab.
Passivate (QQ-P-35/MIL S-500SC)	Passivation is a process designed to remove foreign metals from the surface of stainless and corrosion resistant steels.
Phosphate Coating Light (TT-C-00490B)	Phosphate coating is a light coating for use as a base paint.
Gold (MIL-G-45204B)	Yellow to orange colour depending on proprietary process used. Will range from matt to bright finish depending on base metal. Good corrosion resistance and high tarnish resistance.
Nickel (QQ-N-290A)	Nickel is a corrosion protective plating for steel, zinc and zinc alloys as well as copper and copper alloys.
Zinc (QQ-Z-325C)	The primary use of chromate finishes on zinc is to retard or prevent formation of white corrosion products on zinc surfaces.

The available head sockets include:

Schematic	Drive Types	Uses
	Hexagonal Recess	Ideal for precision assembly. Most recommended where less surface area is available.
	Crosshead (Phillips [®])	Provides good control in driving. Always use a driver bit of the proper size which is in good condition.
	Star Head (Torx [®])	Positive-engaging, fast-locating method which transmits drive torque with less required downward pressure. Good fastening appearance.
	Slotted	Accepts standard blade screwdriver. Requires less downward pressure to drive parts than those with recessed openings. Use a proper fitting blade to minimize slippage.
	Security	These screws are impossible to remove without the special matching screw driver.



P0149.A2



Material

Stainless steel (AISI 303, 1.4305). Tensile strength 550 N/mm². Proof stress min. 190 N/mm², austenitic stainless steel. Also available with blackened finish (P0149.B2), in marine grade stainless steel (AISI 316 series; P0149.A4), in titanium (P0149.Ti), or in other materials such as steel, brass, aluminium etc. on request.

Technical Notes

Used to comply with the Machinery Directive 2006/42/EC. Generally to ISO 7380-1. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

Important Notes

This product was formerly known as P0151. TX. Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d_1 .

Order No.	d_1	l_1 0,25	d_2 0,12	d_3 max.	d_4 min.	h_1 max.	l_2 -0,2	TX size
P0149.025-008-A2	M 2,5	8	1.7	4.5	2.8	1.50	3.7	TX- 8
P0149.025-010-A2	M 2,5	10	1.7	4.5	2.8	1.50	3.7	TX- 8
P0149.025-012-A2	M 2,5	12	1.7	4.5	2.8	1.50	3.7	TX- 8
P0149.025-016-A2	M 2,5	16	1.7	4.5	2.8	1.50	3.7	TX- 8
P0149.025-020-A2	M 2,5	20	1.7	4.5	2.8	1.50	3.7	TX- 8
P0149.030-010-A2	M 3	10	2.0	5.7	3.5	1.65	4.5	TX-10
P0149.030-016-A2	M 3	16	2.0	5.7	3.5	1.65	4.5	TX-10
P0149.030-020-A2	M 3	20	2.0	5.7	3.5	1.65	4.5	TX-10
P0149.030-025-A2	M 3	25	2.0	5.7	3.5	1.65	4.5	TX-10
P0149.030-030-A2	M 3	30	2.0	5.7	3.5	1.65	4.5	TX-10
P0149.030-040-A2	M 3	40	2.0	5.7	3.5	1.65	5.0	TX-10
P0149.040-012-A2	M 4	12	2.8	7.6	4.5	3.10	6.0	TX-20
P0149.040-016-A2	M 4	16	2.8	7.6	4.5	3.10	6.0	TX-20
P0149.040-020-A2	M 4	20	2.8	7.6	4.5	3.10	6.0	TX-20
P0149.040-025-A2	M 4	25	2.8	7.6	4.5	3.10	6.0	TX-20
P0149.040-030-A2	M 4	30	2.8	7.6	4.5	3.10	6.0	TX-20
P0149.040-040-A2	M 4	40	2.8	7.6	4.5	3.10	6.0	TX-20
P0149.040-050-A2	M 4	50	2.8	7.6	4.5	3.10	6.0	TX-20
P0149.040-060-A2	M 4	60	2.8	7.6	4.5	3.10	6.0	TX-20
P0149.050-012-A2	M 5	12	3.7	9.5	5.5	3.70	7.5	TX-25
P0149.050-016-A2	M 5	16	3.7	9.5	5.5	3.70	7.5	TX-25
P0149.050-020-A2	M 5	20	3.7	9.5	5.5	3.70	7.5	TX-25
P0149.050-025-A2	M 5	25	3.7	9.5	5.5	3.70	7.5	TX-25
P0149.050-030-A2	M 5	30	3.7	9.5	5.5	3.70	7.5	TX-25
P0149.050-040-A2	M 5	40	3.7	9.5	5.5	3.70	7.5	TX-25
P0149.050-050-A2	M 5	50	3.7	9.5	5.5	3.70	7.5	TX-25
P0149.050-060-A2	M 5	60	3.7	9.5	5.5	3.70	7.5	TX-25



Captive Screws - Button Head

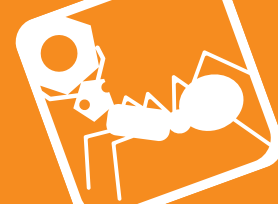
TX drive - 303 stainless



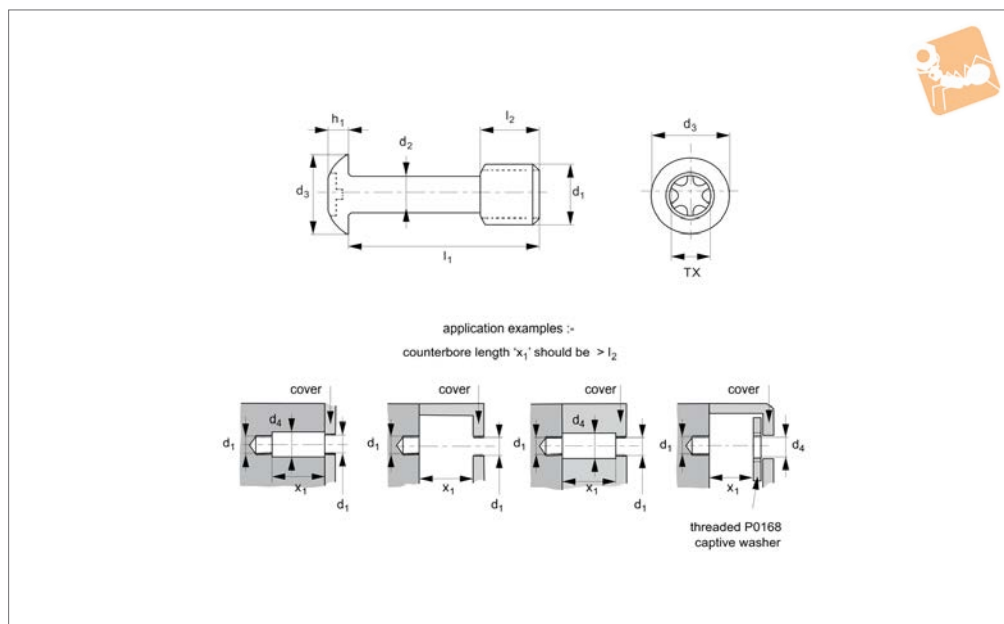
Captive Screws

Order No.	d ₁	l ₁ 0,25	d ₂ 0,12	d ₃ max.	d ₄ min.	h ₁ max.	l ₂ -0,2	TX size
P0149.060-016-A2	M 6	16	4.2	10.5	6.5	4.70	7.5	TX-30
P0149.060-020-A2	M 6	20	4.2	10.5	6.5	4.70	7.5	TX-30
P0149.060-025-A2	M 6	25	4.2	10.5	6.5	4.70	7.5	TX-30
P0149.060-030-A2	M 6	30	4.2	10.5	6.5	4.70	7.5	TX-30
P0149.060-040-A2	M 6	40	4.2	10.5	6.5	4.70	7.5	TX-30
P0149.060-050-A2	M 6	50	4.2	10.5	6.5	4.70	7.5	TX-30
P0149.060-060-A2	M 6	60	4.2	10.5	6.5	4.70	7.5	TX-30
P0149.060-080-A2	M 6	80	4.2	10.5	6.5	4.70	7.5	TX-30

CAPTIVE SCREWS



P0149.A4



Material

Stainless steel (AISI 316, 1.4401). Tensile strength 480 N/mm². Proof stress min. 200 N/mm², austenitic stainless steel. Also available in titanium (P0149.Ti), the less expensive AISI 303 series stainless steel (P0149.A2), or in steel (anodised, black oxide or zinc plated), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Directive 2006/42/EC. Generally to ISO 7380. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	l ₁ 0,25	d ₂ 0,12	d ₃ max.	d ₄ min.	h ₁ max.	l ₂ -0,2	TX size
P0149.025-008-A4	M 2,5	8	1.7	4.5	2.8	1.5	3.7	TX- 8
P0149.025-010-A4	M 2,5	10	1.7	4.5	2.8	1.5	3.7	TX- 8
P0149.025-012-A4	M 2,5	12	1.7	4.5	2.8	1.5	3.7	TX- 8
P0149.025-016-A4	M 2,5	16	1.7	4.5	2.8	1.5	3.7	TX- 8
P0149.025-020-A4	M 2,5	20	1.7	4.5	2.8	1.5	3.7	TX- 8
P0149.030-010-A4	M 3	10	2.0	5.7	3.5	1.65	4.5	TX-10
P0149.030-016-A4	M 3	16	2.0	5.7	3.5	1.65	4.5	TX-10
P0149.030-020-A4	M 3	20	2.0	5.7	3.5	1.65	4.5	TX-10
P0149.030-025-A4	M 3	25	2.0	5.7	3.5	1.65	4.5	TX-10
P0149.030-030-A4	M 3	30	2.0	5.7	3.5	1.65	4.5	TX-10
P0149.030-040-A4	M 3	40	2.0	5.7	3.5	1.65	5.0	TX-10
P0149.040-012-A4	M 4	12	2.8	7.6	4.5	3.1	6.0	TX-20
P0149.040-016-A4	M 4	16	2.8	7.6	4.5	3.1	6.0	TX-20
P0149.040-020-A4	M 4	20	2.8	7.6	4.5	3.1	6.0	TX-20
P0149.040-025-A4	M 4	25	2.8	7.6	4.5	3.1	6.0	TX-20
P0149.040-030-A4	M 4	30	2.8	7.6	4.5	3.1	6.0	TX-20
P0149.040-040-A4	M 4	40	2.8	7.6	4.5	3.1	6.0	TX-20
P0149.040-050-A4	M 4	50	2.8	7.6	4.5	3.1	6.0	TX-20
P0149.040-060-A4	M 4	60	2.8	7.6	4.5	3.1	6.0	TX-20
P0149.050-012-A4	M 5	12	3.7	9.5	5.5	3.7	7.5	TX-25
P0149.050-016-A4	M 5	16	3.7	9.5	5.5	3.7	7.5	TX-25
P0149.050-020-A4	M 5	20	3.7	9.5	5.5	3.7	7.5	TX-25
P0149.050-025-A4	M 5	25	3.7	9.5	5.5	3.7	7.5	TX-25
P0149.050-030-A4	M 5	30	3.7	9.5	5.5	3.7	7.5	TX-25
P0149.050-040-A4	M 5	40	3.7	9.5	5.5	3.7	7.5	TX-25
P0149.050-050-A4	M 5	50	3.7	9.5	5.5	3.7	7.5	TX-25
P0149.050-060-A4	M 5	60	3.7	9.5	5.5	3.7	7.5	TX-25
P0149.060-016-A4	M 6	16	4.2	10.5	6.5	4.7	7.5	TX-30



Captive Screws - Button Head

TX drive - 316 stainless



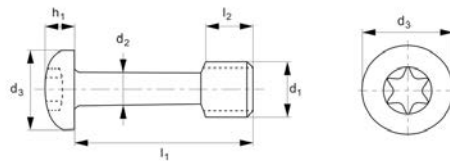
Captive Screws

Order No.	d ₁	l ₁ 0,25	d ₂ 0,12	d ₃ max.	d ₄ min.	h ₁ max.	l ₂ -0,2	TX size
P0149.060-020-A4	M 6	20	4.2	10.5	6.5	4.7	7.5	TX-30
P0149.060-025-A4	M 6	25	4.2	10.5	6.5	4.7	7.5	TX-30
P0149.060-030-A4	M 6	30	4.2	10.5	6.5	4.7	7.5	TX-30
P0149.060-040-A4	M 6	40	4.2	10.5	6.5	4.7	7.5	TX-30
P0149.060-050-A4	M 6	50	4.2	10.5	6.5	4.7	7.5	TX-30
P0149.060-060-A4	M 6	60	4.2	10.5	6.5	4.7	7.5	TX-30
P0149.060-080-A4	M 6	80	4.2	10.5	6.5	4.7	7.5	TX-30

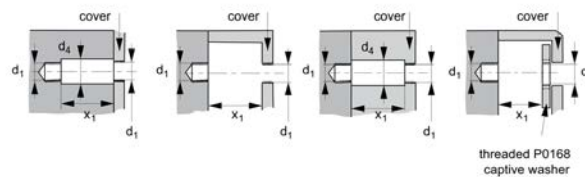
CAPTIVE SCREWS



P0150.A2



application examples :-
counterbore length 'x₁' should be > l₂



Material

Stainless steel (AISI 303, 1.4305). Tensile strength 550 N/mm². Proof stress min. 190 N/mm², austenitic stainless steel. Also available on request in steel (anodised, black oxide or zinc plated), stainless steel (AISI 316, 1.440), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Direc-

tive 2006/42/EC. Generally to ISO 14583. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

* M 8 sizes have a reduced TX size.

reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Important Notes

Please note that these screws have a

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ max.	d ₄ min.	h ₁ max.	l ₂ ±0.25	TX size
P0150.030-008-A2	M 3	8	2.0	6	3.5	2.5	4.5	TX-10
P0150.030-010-A2	M 3	10	2.0	6	3.5	2.5	4.5	TX-10
P0150.030-016-A2	M 3	16	2.0	6	3.5	2.5	4.5	TX-10
P0150.030-020-A2	M 3	20	2.0	6	3.5	2.5	4.5	TX-10
P0150.030-025-A2	M 3	25	2.0	6	3.5	2.5	4.5	TX-10
P0150.030-030-A2	M 3	30	2.0	6	3.5	2.5	4.5	TX-10
P0150.040-008-A2	M 4	8	2.8	8	4.5	3.2	6.0	TX-20
P0150.040-010-A2	M 4	10	2.8	8	4.5	3.2	6.0	TX-20
P0150.040-012-A2	M 4	12	2.8	8	4.5	3.2	6.0	TX-20
P0150.040-016-A2	M 4	16	2.8	8	4.5	3.2	6.0	TX-20
P0150.040-020-A2	M 4	20	2.8	8	4.5	3.2	6.0	TX-20
P0150.040-025-A2	M 4	25	2.8	8	4.5	3.2	6.0	TX-20
P0150.040-030-A2	M 4	30	2.8	8	4.5	3.2	6.0	TX-20
P0150.040-040-A2	M 4	40	2.8	8	4.5	3.2	6.0	TX-20
P0150.040-050-A2	M 4	50	2.8	8	4.5	3.2	6.0	TX-20
P0150.050-010-A2	M 5	10	3.7	10	5.5	3.9	7.5	TX-25
P0150.050-012-A2	M 5	12	3.7	10	5.5	3.9	7.5	TX-25
P0150.050-016-A2	M 5	16	3.7	10	5.5	3.9	7.5	TX-25
P0150.050-020-A2	M 5	20	3.7	10	5.5	3.9	7.5	TX-25
P0150.050-025-A2	M 5	25	3.7	10	5.5	3.9	7.5	TX-25
P0150.050-030-A2	M 5	30	3.7	10	5.5	3.9	7.5	TX-25
P0150.050-040-A2	M 5	40	3.7	10	5.5	3.9	7.5	TX-25
P0150.050-050-A2	M 5	50	3.7	10	5.5	3.9	7.5	TX-25
P0150.060-010-A2	M 6	10	4.2	12	6.5	4.7	7.5	TX-30
P0150.060-012-A2	M 6	12	4.2	12	6.5	4.7	7.5	TX-30
P0150.060-016-A2	M 6	16	4.2	12	6.5	4.7	7.5	TX-30



Captive Screws - Pan Head

TX drive - 303 stainless



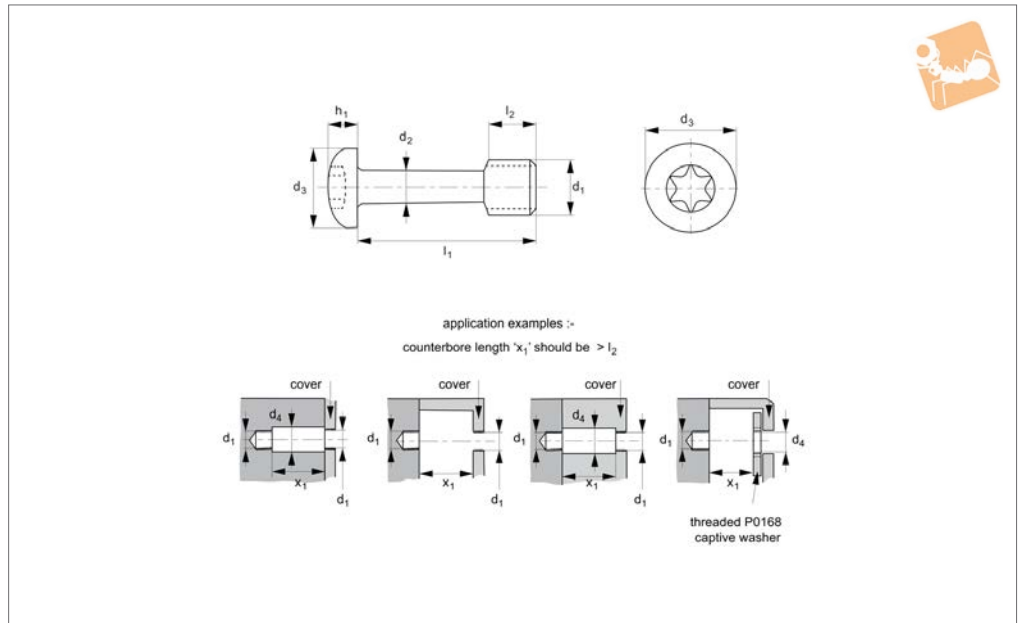
Captive Screws

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ max.	d ₄ min.	h ₁ max.	l ₂ ±0.25	TX size
P0150.060-020-A2	M 6	20	4.2	12	6.5	4.7	7.5	TX-30
P0150.060-025-A2	M 6	25	4.2	12	6.5	4.7	7.5	TX-30
P0150.060-030-A2	M 6	30	4.2	12	6.5	4.7	7.5	TX-30
P0150.060-040-A2	M 6	40	4.2	12	6.5	4.7	7.5	TX-30
P0150.060-050-A2	M 6	50	4.2	12	6.5	4.7	7.5	TX-30
P0150.060-060-A2	M 6	60	4.2	12	6.5	4.7	7.5	TX-30
P0150.060-080-A2	M 6	80	4.2	12	6.5	4.7	7.5	TX-30
P0150.080-012-A2	M 8	12	6.0	16	8.5	6.1	10.0	TX-30*
P0150.080-016-A2	M 8	16	6.0	16	8.5	6.1	10.0	TX-30*
P0150.080-020-A2	M 8	20	6.0	16	8.5	6.1	10.0	TX-30*
P0150.080-025-A2	M 8	25	6.0	16	8.5	6.1	10.0	TX-30*
P0150.080-030-A2	M 8	30	6.0	16	8.5	6.1	10.0	TX-30*
P0150.080-035-A2	M 8	35	6.0	16	8.5	6.1	10.0	TX-30*
P0150.080-040-A2	M 8	40	6.0	16	8.5	6.1	10.0	TX-30*
P0150.080-045-A2	M 8	45	6.0	16	8.5	6.1	10.0	TX-30*
P0150.080-050-A2	M 8	50	6.0	16	8.5	6.1	10.0	TX-30*
P0150.080-060-A2	M 8	60	6.0	16	8.5	6.1	10.0	TX-30*
P0150.080-080-A2	M 8	80	6.0	16	8.5	6.1	10.0	TX-30*

CAPTIVE SCREWS



P0150.A4



Material

Stainless steel (AISI 316, 1.440). Tensile strength 480 N/mm². Proof stress min. 200 N/mm², austenitic stainless steel. Also available on request in steel (anodised, black oxide or zinc plated), stainless steel (AISI 303, 1.4305), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Direc-

tive 2006/42/EC. Generally to ISO 14583. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

* M 8 sizes have a reduced TX size.

reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Important Notes

Please note that these screws have a

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ max.	d ₄ min.	h ₁ max.	l ₂ ±0.25	TX size
P0150.030-008-A4	M 3	8	2.0	6	3.5	2.5	4.5	TX-10
P0150.030-010-A4	M 3	10	2.0	6	3.5	2.5	4.5	TX-10
P0150.030-016-A4	M 3	16	2.0	6	3.5	2.5	4.5	TX-10
P0150.030-020-A4	M 3	20	2.0	6	3.5	2.5	4.5	TX-10
P0150.030-025-A4	M 3	25	2.0	6	3.5	2.5	4.5	TX-10
P0150.030-030-A4	M 3	30	2.0	6	3.5	2.5	4.5	TX-10
P0150.040-008-A4	M 4	8	2.8	8	4.5	3.2	6.0	TX-20
P0150.040-010-A4	M 4	10	2.8	8	4.5	3.2	6.0	TX-20
P0150.040-012-A4	M 4	12	2.8	8	4.5	3.2	6.0	TX-20
P0150.040-016-A4	M 4	16	2.8	8	4.5	3.2	6.0	TX-20
P0150.040-020-A4	M 4	20	2.8	8	4.5	3.2	6.0	TX-20
P0150.040-025-A4	M 4	25	2.8	8	4.5	3.2	6.0	TX-20
P0150.040-030-A4	M 4	30	2.8	8	4.5	3.2	6.0	TX-20
P0150.040-040-A4	M 4	40	2.8	8	4.5	3.2	6.0	TX-20
P0150.040-050-A4	M 4	50	2.8	8	4.5	3.2	6.0	TX-20
P0150.050-010-A4	M 5	10	3.7	10	5.5	3.9	7.5	TX-25
P0150.050-012-A4	M 5	12	3.7	10	5.5	3.9	7.5	TX-25
P0150.050-016-A4	M 5	16	3.7	10	5.5	3.9	7.5	TX-25
P0150.050-020-A4	M 5	20	3.7	10	5.5	3.9	7.5	TX-25
P0150.050-025-A4	M 5	25	3.7	10	5.5	3.9	7.5	TX-25
P0150.050-030-A4	M 5	30	3.7	10	5.5	3.9	7.5	TX-25
P0150.050-040-A4	M 5	40	3.7	10	5.5	3.9	7.5	TX-25
P0150.050-050-A4	M 5	50	3.7	10	5.5	3.9	7.5	TX-25
P0150.060-010-A4	M 6	10	4.2	12	6.5	4.7	7.5	TX-30
P0150.060-012-A4	M 6	12	4.2	12	6.5	4.7	7.5	TX-30
P0150.060-016-A4	M 6	16	4.2	12	6.5	4.7	7.5	TX-30



Captive Screws - Pan Head

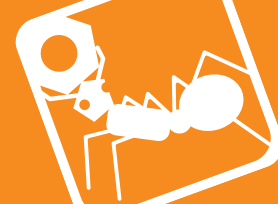
TX drive - 316 stainless



Captive Screws

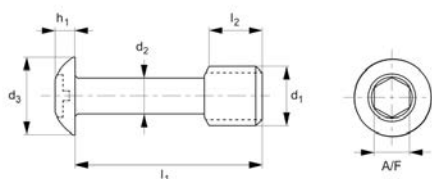
Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ max.	d ₄ min.	h ₁ max.	l ₂ ±0.25	TX size
P0150.060-020-A4	M 6	20	4.2	12	6.5	4.7	7.5	TX-30
P0150.060-025-A4	M 6	25	4.2	12	6.5	4.7	7.5	TX-30
P0150.060-030-A4	M 6	30	4.2	12	6.5	4.7	7.5	TX-30
P0150.060-040-A4	M 6	40	4.2	12	6.5	4.7	7.5	TX-30
P0150.060-050-A4	M 6	50	4.2	12	6.5	4.7	7.5	TX-30
P0150.060-060-A4	M 6	60	4.2	12	6.5	4.7	7.5	TX-30
P0150.060-080-A4	M 6	80	4.2	12	6.5	4.7	7.5	TX-30
P0150.080-012-A4	M 8	12	6.0	16	8.5	6.1	10.0	TX-30*
P0150.080-016-A4	M 8	16	6.0	16	8.5	6.1	10.0	TX-30*
P0150.080-020-A4	M 8	20	6.0	16	8.5	6.1	10.0	TX-30*
P0150.080-025-A4	M 8	25	6.0	16	8.5	6.1	10.0	TX-30*
P0150.080-030-A4	M 8	30	6.0	16	8.5	6.1	10.0	TX-30*
P0150.080-035-A4	M 8	35	6.0	16	8.5	6.1	10.0	TX-30*
P0150.080-040-A4	M 8	40	6.0	16	8.5	6.1	10.0	TX-30*
P0150.080-045-A4	M 8	45	6.0	16	8.5	6.1	10.0	TX-30*
P0150.080-050-A4	M 8	50	6.0	16	8.5	6.1	10.0	TX-30*
P0150.080-060-A4	M 8	60	6.0	16	8.5	6.1	10.0	TX-30*
P0150.080-080-A4	M 8	80	6.0	16	8.5	6.1	10.0	TX-30*

CAPTIVE SCREWS

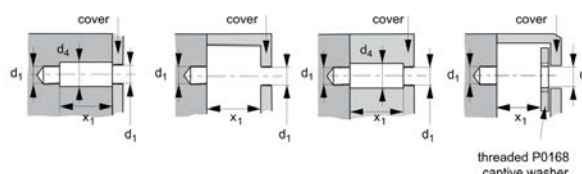


P0151.A2

MADE IN
BRITAIN



application examples :-
counterbore length 'x₁' should be > l₂



Material

Stainless steel (AISI 303, 1.4305). Tensile strength 550 N/mm². Proof stress min. 190 N/mm², austenitic stainless steel. Also available on request in steel (anodised, black oxide or zinc plated), stainless steel (AISI 316, 1.440), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Directive 2006/42/EC. Generally to ISO 7380-1. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded

holes.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ max.	d ₄ min.	h ₁ max.	l ₂ ±0.25	A/F
P0151.025-008-A2	M 2,5	8	1.7	4.5	2.8	1.50	3.7	1.5
P0151.025-010-A2	M 2,5	10	1.7	4.5	2.8	1.50	3.7	1.5
P0151.025-012-A2	M 2,5	12	1.7	4.5	2.8	1.50	3.7	1.5
P0151.025-016-A2	M 2,5	16	1.7	4.5	2.8	1.50	3.7	1.5
P0151.025-020-A2	M 2,5	20	1.7	4.5	2.8	1.50	3.7	1.5
P0151.030-008-A2	M 3	8	2.0	5.7	3.5	1.53	4.5	2
P0151.030-010-A2	M 3	10	2.0	5.7	3.5	1.53	4.5	2
P0151.030-016-A2	M 3	16	2.0	5.7	3.5	1.53	4.5	2
P0151.030-020-A2	M 3	20	2.0	5.7	3.5	1.53	4.5	2
P0151.030-025-A2	M 3	25	2.0	5.7	3.5	1.53	4.5	2
P0151.030-030-A2	M 3	30	2.0	5.7	3.5	1.53	4.5	2
P0151.030-040-A2	M 3	40	2.0	5.7	3.5	1.53	4.5	2
P0151.040-010-A2	M 4	10	2.8	7.6	4.5	2.10	6.0	2.5
P0151.040-012-A2	M 4	12	2.8	7.6	4.5	2.10	6.0	2.5
P0151.040-016-A2	M 4	16	2.8	7.6	4.5	2.10	6.0	2.5
P0151.040-020-A2	M 4	20	2.8	7.6	4.5	2.10	6.0	2.5
P0151.040-025-A2	M 4	25	2.8	7.6	4.5	2.10	6.0	2.5
P0151.040-030-A2	M 4	30	2.8	7.6	4.5	2.10	6.0	2.5
P0151.040-035-A2	M 4	35	2.8	7.6	4.5	2.10	6.0	2.5
P0151.040-040-A2	M 4	40	2.8	7.6	4.5	2.10	6.0	2.5
P0151.040-050-A2	M 4	50	2.8	7.6	4.5	2.10	6.0	2.5
P0151.040-060-A2	M 4	60	2.8	7.6	4.5	2.10	6.0	2.5
P0151.050-012-A2	M 5	12	3.7	9.5	5.5	2.63	7.5	3
P0151.050-016-A2	M 5	16	3.7	9.5	5.5	2.63	7.5	3
P0151.050-020-A2	M 5	20	3.7	9.5	5.5	2.63	7.5	3
P0151.050-025-A2	M 5	25	3.7	9.5	5.5	2.63	7.5	3
P0151.050-030-A2	M 5	30	3.7	9.5	5.5	2.63	7.5	3
P0151.050-040-A2	M 5	40	3.7	9.5	5.5	2.63	7.5	3
P0151.050-050-A2	M 5	50	3.7	9.5	5.5	2.63	7.5	3



Captive Screws - Button Head

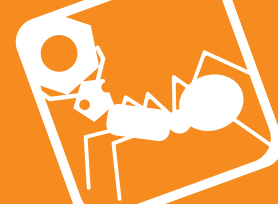
hex drive - 303 stainless



Captive Screws

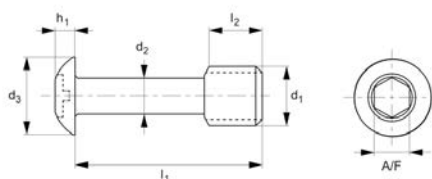
Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ max.	d ₄ min.	h ₁ max.	l ₂ ±0.25	A/F
P0151.050-060-A2	M 5	60	3.7	9.5	5.5	2.63	7.5	3
P0151.060-012-A2	M 6	12	4.2	10.5	6.5	3.10	7.5	4
P0151.060-016-A2	M 6	16	4.2	10.5	6.5	3.10	7.5	4
P0151.060-020-A2	M 6	20	4.2	10.5	6.5	3.10	7.5	4
P0151.060-025-A2	M 6	25	4.2	10.5	6.5	3.10	7.5	4
P0151.060-030-A2	M 6	30	4.2	10.5	6.5	3.10	7.5	4
P0151.060-035-A2	M 6	35	4.2	10.5	6.5	3.10	7.5	4
P0151.060-040-A2	M 6	40	4.2	10.5	6.5	3.10	7.5	4
P0151.060-050-A2	M 6	50	4.2	10.5	6.5	3.10	7.5	4
P0151.060-060-A2	M 6	60	4.2	10.5	6.5	3.10	7.5	4
P0151.060-080-A2	M 6	80	4.2	10.5	6.5	3.10	7.5	4
P0151.080-016-A2	M 8	16	6.0	14.0	8.5	4.46	10.0	5
P0151.080-020-A2	M 8	20	6.0	14.0	8.5	4.46	10.0	5
P0151.080-025-A2	M 8	25	6.0	14.0	8.5	4.46	10.0	5
P0151.080-030-A2	M 8	30	6.0	14.0	8.5	4.46	10.0	5
P0151.080-035-A2	M 8	35	6.0	14.0	8.5	4.46	10.0	5
P0151.080-040-A2	M 8	40	6.0	14.0	8.5	4.46	10.0	5
P0151.080-045-A2	M 8	45	6.0	14.0	8.5	4.46	10.0	5
P0151.080-050-A2	M 8	50	6.0	14.0	8.5	4.46	10.0	5
P0151.080-060-A2	M 8	60	6.0	14.0	8.5	4.46	10.0	5
P0151.080-080-A2	M 8	80	6.0	14.0	8.5	4.46	10.0	5
P0151.100-020-A2	M 10	20	7.5	17.5	10.6	5.5	12.5	6
P0151.100-025-A2	M 10	25	7.5	17.5	10.6	5.5	12.5	6
P0151.100-030-A2	M 10	30	7.5	17.5	10.6	5.5	12.5	6
P0151.100-035-A2	M 10	35	7.5	17.5	10.6	5.5	12.5	6
P0151.100-040-A2	M 10	40	7.5	17.5	10.6	5.5	12.5	6
P0151.100-045-A2	M 10	45	7.5	17.5	10.6	5.5	12.5	6
P0151.100-050-A2	M 10	50	7.5	17.5	10.6	5.5	12.5	6
P0151.100-060-A2	M 10	60	7.5	17.5	10.6	5.5	12.5	6
P0151.100-080-A2	M 10	80	7.5	17.5	10.6	5.5	12.5	6

CAPTIVE SCREWS

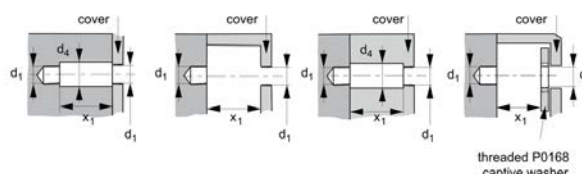


P0151.A4

MADE IN
BRITAIN



application examples :-
counterbore length 'x₁' should be > l₂



Material

Stainless steel (AISI 316, 1.440). Tensile strength 480 N/mm². Proof stress min. 200 N/mm², austenitic stainless steel. Also available on request in steel (anodised, black oxide or zinc plated), stainless steel (AISI 303, 1.4305), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Directive 2006/42/EC. Generally to ISO 7380-1. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded

holes.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ max.	d ₄ min.	h ₁ max.	l ₂ ±0.25	A/F
P0151.025-008-A4	M 2,5	8	1.7	4.5	2.8	1.50	3.7	1.5
P0151.025-010-A4	M 2,5	10	1.7	4.5	2.8	1.50	3.7	1.5
P0151.025-012-A4	M 2,5	12	1.7	4.5	2.8	1.50	3.7	1.5
P0151.025-016-A4	M 2,5	16	1.7	4.5	2.8	1.50	3.7	1.5
P0151.025-020-A4	M 2,5	20	1.7	4.5	2.8	1.50	3.7	1.5
P0151.030-008-A4	M 3	8	2.0	5.7	3.5	1.53	4.5	2
P0151.030-010-A4	M 3	10	2.0	5.7	3.5	1.53	4.5	2
P0151.030-016-A4	M 3	16	2.0	5.7	3.5	1.53	4.5	2
P0151.030-020-A4	M 3	20	2.0	5.7	3.5	1.53	4.5	2
P0151.030-025-A4	M 3	25	2.0	5.7	3.5	1.53	4.5	2
P0151.030-030-A4	M 3	30	2.0	5.7	3.5	1.53	4.5	2
P0151.030-040-A4	M 3	40	2.0	5.7	3.5	1.53	4.5	2
P0151.040-010-A4	M 4	10	2.8	7.6	4.5	2.10	6.0	2.5
P0151.040-012-A4	M 4	12	2.8	7.6	4.5	2.10	6.0	2.5
P0151.040-016-A4	M 4	16	2.8	7.6	4.5	2.10	6.0	2.5
P0151.040-020-A4	M 4	20	2.8	7.6	4.5	2.10	6.0	2.5
P0151.040-025-A4	M 4	25	2.8	7.6	4.5	2.10	6.0	2.5
P0151.040-030-A4	M 4	30	2.8	7.6	4.5	2.10	6.0	2.5
P0151.040-035-A4	M 4	35	2.8	7.6	4.5	2.10	6.0	2.5
P0151.040-040-A4	M 4	40	2.8	7.6	4.5	2.10	6.0	2.5
P0151.040-050-A4	M 4	50	2.8	7.6	4.5	2.10	6.0	2.5
P0151.040-060-A4	M 4	60	2.8	7.6	4.5	2.10	6.0	2.5
P0151.050-012-A4	M 5	12	3.7	9.5	5.5	2.63	7.5	3
P0151.050-016-A4	M 5	16	3.7	9.5	5.5	2.63	7.5	3
P0151.050-020-A4	M 5	20	3.7	9.5	5.5	2.63	7.5	3
P0151.050-025-A4	M 5	25	3.7	9.5	5.5	2.63	7.5	3
P0151.050-030-A4	M 5	30	3.7	9.5	5.5	2.63	7.5	3
P0151.050-040-A4	M 5	40	3.7	9.5	5.5	2.63	7.5	3
P0151.050-050-A4	M 5	50	3.7	9.5	5.5	2.63	7.5	3



Captive Screws - Button Head

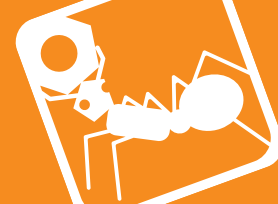
hex drive - 316 stainless



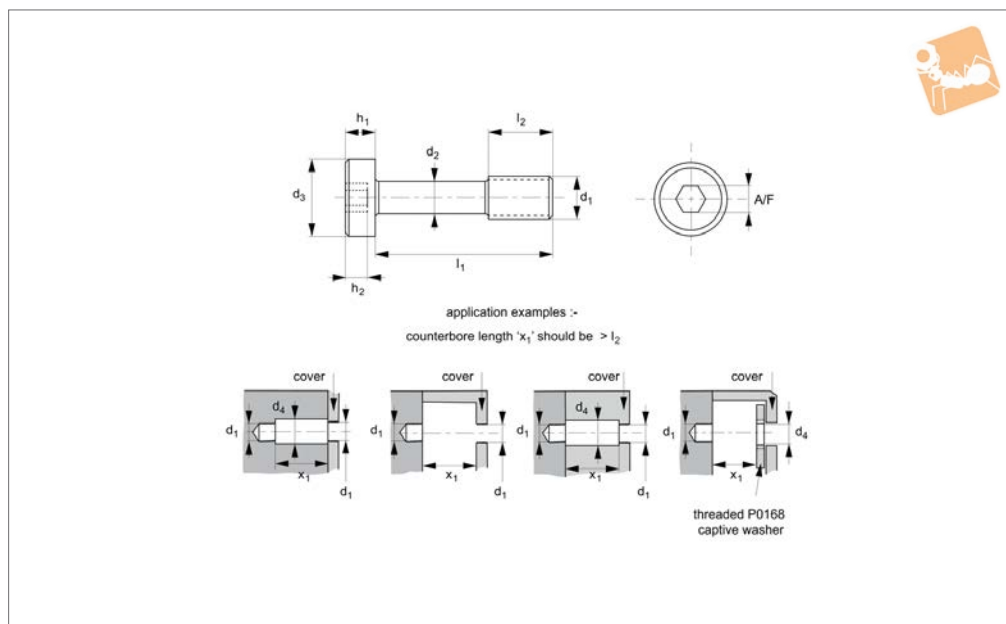
Captive Screws

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ max.	d ₄ min.	h ₁ max.	l ₂ ±0.25	A/F
P0151.050-060-A4	M 5	60	3.7	9.5	5.5	2.63	7.5	3
P0151.060-012-A4	M 6	12	4.2	10.5	6.5	3.10	7.5	4
P0151.060-016-A4	M 6	16	4.2	10.5	6.5	3.10	7.5	4
P0151.060-020-A4	M 6	20	4.2	10.5	6.5	3.10	7.5	4
P0151.060-025-A4	M 6	25	4.2	10.5	6.5	3.10	7.5	4
P0151.060-030-A4	M 6	30	4.2	10.5	6.5	3.10	7.5	4
P0151.060-035-A4	M 6	35	4.2	10.5	6.5	3.10	7.5	4
P0151.060-040-A4	M 6	40	4.2	10.5	6.5	3.10	7.5	4
P0151.060-050-A4	M 6	50	4.2	10.5	6.5	3.10	7.5	4
P0151.060-060-A4	M 6	60	4.2	10.5	6.5	3.10	7.5	4
P0151.060-080-A4	M 6	80	4.2	10.5	6.5	3.10	7.5	4
P0151.080-016-A4	M 8	16	6.0	14.0	8.5	4.46	10.0	5
P0151.080-020-A4	M 8	20	6.0	14.0	8.5	4.46	10.0	5
P0151.080-025-A4	M 8	25	6.0	14.0	8.5	4.46	10.0	5
P0151.080-030-A4	M 8	30	6.0	14.0	8.5	4.46	10.0	5
P0151.080-035-A4	M 8	35	6.0	14.0	8.5	4.46	10.0	5
P0151.080-040-A4	M 8	40	6.0	14.0	8.5	4.46	10.0	5
P0151.080-045-A4	M 8	45	6.0	14.0	8.5	4.46	10.0	5
P0151.080-050-A4	M 8	50	6.0	14.0	8.5	4.46	10.0	5
P0151.080-060-A4	M 8	60	6.0	14.0	8.5	4.46	10.0	5
P0151.080-080-A4	M 8	80	6.0	14.0	8.5	4.46	10.0	5
P0151.100-020-A4	M 10	20	7.5	17.5	10.6	5.5	12.5	6
P0151.100-025-A4	M 10	25	7.5	17.5	10.6	5.5	12.5	6
P0151.100-030-A4	M 10	30	7.5	17.5	10.6	5.5	12.5	6
P0151.100-035-A4	M 10	35	7.5	17.5	10.6	5.5	12.5	6
P0151.100-040-A4	M 10	40	7.5	17.5	10.6	5.5	12.5	6
P0151.100-045-A4	M 10	45	7.5	17.5	10.6	5.5	12.5	6
P0151.100-050-A4	M 10	50	7.5	17.5	10.6	5.5	12.5	6
P0151.100-060-A4	M 10	60	7.5	17.5	10.6	5.5	12.5	6
P0151.100-080-A4	M 10	80	7.5	17.5	10.6	5.5	12.5	6

CAPTIVE SCREWS



P0152.A2



Material

Stainless steel (AISI 303, 1.4305). Tensile strength 550 N/mm². Proof stress min. 190 N/mm², austenitic stainless steel. Also available on request in steel (anodised, black oxide or zinc plated), stainless steel (AISI 316, 1.4400), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Direc-

tive 2006/42/EC. Generally to ISO 1207. Often used with our captive washers (P0168) or retaining flanges (P0169.A2 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

Important Notes

Please note that these screws have a

reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃	d ₄ min.	h ₁	h ₂	l ₂ ±0.25	A/F
P0152.020-010-A2	M 2	10	1.2	3.8	2.5	1.3	0.85	3.0	1.3
P0152.020-012-A2	M 2	12	1.2	3.8	2.5	1.3	0.85	3.0	1.3
P0152.020-016-A2	M 2	16	1.2	3.8	2.5	1.3	0.85	3.0	1.3
P0152.020-020-A2	M 2	20	1.2	3.8	2.5	1.3	0.85	3.0	1.3
P0152.025-008-A2	M 2,5	8	1.7	4.5	2.8	1.6	1.00	3.7	1.5
P0152.025-010-A2	M 2,5	10	1.7	4.5	2.8	1.6	1.00	3.7	1.5
P0152.025-016-A2	M 2,5	16	1.7	4.5	2.8	1.6	1.00	3.7	1.5
P0152.025-020-A2	M 2,5	20	1.7	4.5	2.8	1.6	1.00	3.7	1.5
P0152.025-025-A2	M 2,5	25	1.7	4.5	2.8	1.6	1.00	3.7	1.5
P0152.025-030-A2	M 2,5	30	1.7	4.5	2.8	1.6	1.00	3.7	1.5
P0152.030-010-A2	M 3	10	2.0	5.5	3.5	2.0	1.30	4.5	2
P0152.030-011-A2	M 3	11	2.0	5.5	3.5	2.0	1.30	4.5	2
P0152.030-013-A2	M 3	13	2.0	5.5	3.5	2.0	1.30	4.5	2
P0152.030-016-A2	M 3	16	2.0	5.5	3.5	2.0	1.30	4.5	2
P0152.030-018-A2	M 3	18	2.0	5.5	3.5	2.0	1.30	4.5	2
P0152.030-020-A2	M 3	20	2.0	5.5	3.5	2.0	1.30	4.5	2
P0152.030-025-A2	M 3	25	2.0	5.5	3.5	2.0	1.30	4.5	2
P0152.030-030-A2	M 3	30	2.0	5.5	3.5	2.0	1.30	4.5	2
P0152.030-040-A2	M 3	40	2.0	5.5	3.5	2.0	1.30	4.5	2
P0152.035-010-A2	M 3,5	10	2.3	6.0	3.8	2.4	1.4	5.2	2.5
P0152.035-016-A2	M 3,5	16	2.3	6.0	3.8	2.4	1.4	5.2	2.5
P0152.035-020-A2	M 3,5	20	2.3	6.0	3.8	2.4	1.4	5.2	2.5
P0152.035-025-A2	M 3,5	25	2.3	6.0	3.8	2.4	1.4	5.2	2.5
P0152.035-030-A2	M 3,5	30	2.3	6.0	3.8	2.4	1.4	5.2	2.5
P0152.035-040-A2	M 3,5	40	2.3	6.0	3.8	2.4	1.4	5.2	2.5
P0152.040-010-A2	M 4	10	2.8	7.0	4.5	2.6	1.6	6.0	2.5
P0152.040-012-A2	M 4	12	2.8	7.0	4.5	2.6	1.6	6.0	2.5
P0152.040-016-A2	M 4	16	2.8	7.0	4.5	2.6	1.6	6.0	2.5



Captive Screws - Cheese Head

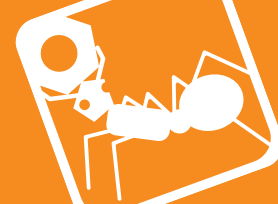
hex drive - 303 stainless



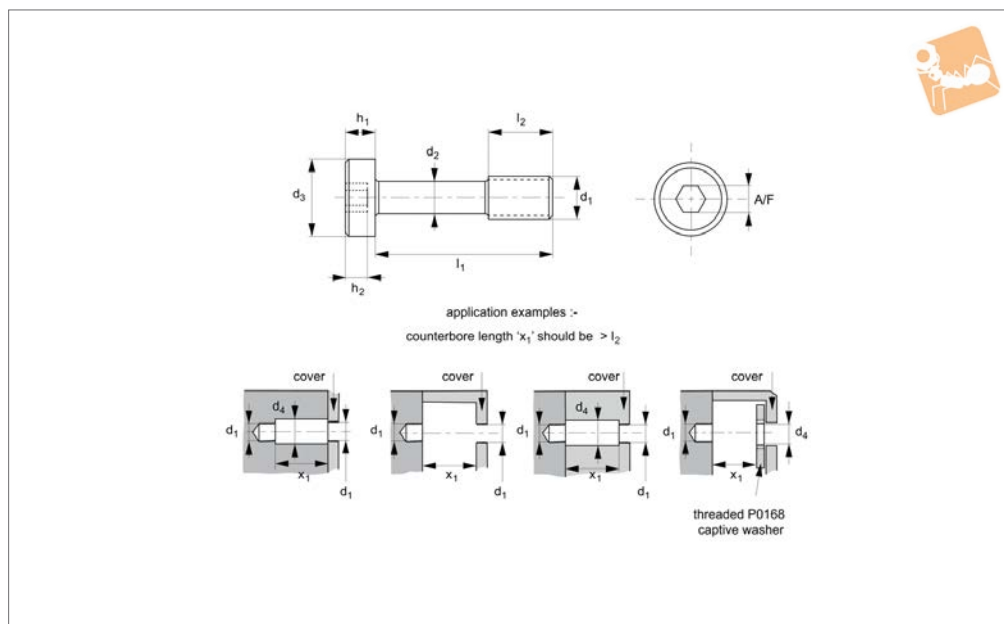
Captive Screws

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃	d ₄ min.	h ₁	h ₂	l ₂ ±0.25	A/F
P0152.040-018-A2	M 4	18	2.8	7.0	4.5	2.6	1.6	6.0	2.5
P0152.040-019-A2	M 4	19	2.8	7.0	4.5	2.6	1.6	6.0	2.5
P0152.040-020-A2	M 4	20	2.8	7.0	4.5	2.6	1.6	6.0	2.5
P0152.040-025-A2	M 4	25	2.8	7.0	4.5	2.6	1.6	6.0	2.5
P0152.040-030-A2	M 4	30	2.8	7.0	4.5	2.6	1.6	6.0	2.5
P0152.040-040-A2	M 4	40	2.8	7.0	4.5	2.6	1.6	6.0	2.5
P0152.040-050-A2	M 4	50	2.8	7.0	4.5	2.6	1.6	6.0	2.5
P0152.040-060-A2	M 4	60	2.8	7.0	4.5	2.6	1.6	6.0	2.5
P0152.050-010-A2	M 5	10	3.7	8.5	5.5	3.3	2.0	7.5	3
P0152.050-012-A2	M 5	12	3.7	8.5	5.5	3.3	2.0	7.5	3
P0152.050-016-A2	M 5	16	3.7	8.5	5.5	3.3	2.0	7.5	3
P0152.050-018-A2	M 5	18	3.7	8.5	5.5	3.3	2.0	7.5	3
P0152.050-020-A2	M 5	20	3.7	8.5	5.5	3.3	2.0	7.5	3
P0152.050-022-A2	M 5	22	3.7	8.5	5.5	3.3	2.0	7.5	3
P0152.050-025-A2	M 5	25	3.7	8.5	5.5	3.3	2.0	7.5	3
P0152.050-030-A2	M 5	30	3.7	8.5	5.5	3.3	2.0	7.5	3
P0152.050-040-A2	M 5	40	3.7	8.5	5.5	3.3	2.0	7.5	3
P0152.050-050-A2	M 5	50	3.7	8.5	5.5	3.3	2.0	7.5	3
P0152.050-060-A2	M 5	60	3.7	8.5	5.5	3.3	2.0	7.5	3
P0152.050-080-A2	M 5	80	3.7	8.5	5.5	3.3	2.0	7.5	3
P0152.060-016-A2	M 6	16	4.2	10.0	6.5	3.9	2.3	7.5	4
P0152.060-020-A2	M 6	20	4.2	10.0	6.5	3.9	2.3	7.5	4
P0152.060-025-A2	M 6	25	4.2	10.0	6.5	3.9	2.3	7.5	4
P0152.060-030-A2	M 6	30	4.2	10.0	6.5	3.9	2.3	7.5	4
P0152.060-040-A2	M 6	40	4.2	10.0	6.5	3.9	2.3	7.5	4
P0152.060-050-A2	M 6	50	4.2	10.0	6.5	3.9	2.3	7.5	4
P0152.060-060-A2	M 6	60	4.2	10.0	6.5	3.9	2.3	7.5	4
P0152.060-080-A2	M 6	80	4.2	10.0	6.5	3.9	2.3	7.5	4

CAPTIVE SCREWS



P0152.A4



Material

Stainless steel (AISI 316, 1.4401). This grade of stainless steel is highly resistant to corrosion and is suitable for outdoor, medical and marine applications. Tensile strength 550 N/mm². Also available on request in titanium, steel (anodised, black oxide coated or zinc plated), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Directive 2006/42/EC. Generally to ISO 1207. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃	d ₄ min.	h ₁	h ₂	l ₂ ±0.25	A/F
P0152.020-010-A4	M 2	10	1.2	3.8	2.5	1.3	0.85	3.0	1.3
P0152.020-012-A4	M 2	12	1.2	3.8	2.5	1.3	0.85	3.0	1.3
P0152.020-016-A4	M 2	16	1.2	3.8	2.5	1.3	0.85	3.0	1.3
P0152.020-020-A4	M 2	20	1.2	3.8	2.5	1.3	0.85	3.0	1.3
P0152.025-008-A4	M 2,5	8	1.7	4.5	2.8	1.6	1.00	3.7	1.5
P0152.025-010-A4	M 2,5	10	1.7	4.5	2.8	1.6	1.00	3.7	1.5
P0152.025-016-A4	M 2,5	16	1.7	4.5	2.8	1.6	1.00	3.7	1.5
P0152.025-020-A4	M 2,5	20	1.7	4.5	2.8	1.6	1.00	3.7	1.5
P0152.025-025-A4	M 2,5	25	1.7	4.5	2.8	1.6	1.00	3.7	1.5
P0152.025-030-A4	M 2,5	30	1.7	4.5	2.8	1.6	1.00	3.7	1.5
P0152.030-010-A4	M 3	10	2.0	5.5	3.5	2.0	1.30	4.5	2
P0152.030-011-A4	M 3	11	2.0	5.5	3.5	2.0	1.30	4.5	2
P0152.030-013-A4	M 3	13	2.0	5.5	3.5	2.0	1.30	4.5	2
P0152.030-016-A4	M 3	16	2.0	5.5	3.5	2.0	1.30	4.5	2
P0152.030-018-A4	M 3	18	2.0	5.5	3.5	2.0	1.30	4.5	2
P0152.030-020-A4	M 3	20	2.0	5.5	3.5	2.0	1.30	4.5	2
P0152.030-025-A4	M 3	25	2.0	5.5	3.5	2.0	1.30	4.5	2
P0152.030-030-A4	M 3	30	2.0	5.5	3.5	2.0	1.30	4.5	2
P0152.030-040-A4	M 3	40	2.0	5.5	3.5	2.0	1.30	4.5	2
P0152.035-010-A4	M 3,5	10	2.3	6.0	3.8	2.4	1.4	5.2	2.5
P0152.035-016-A4	M 3,5	16	2.3	6.0	3.8	2.4	1.4	5.2	2.5
P0152.035-020-A4	M 3,5	20	2.3	6.0	3.8	2.4	1.4	5.2	2.5
P0152.035-025-A4	M 3,5	25	2.3	6.0	3.8	2.4	1.4	5.2	2.5
P0152.035-030-A4	M 3,5	30	2.3	6.0	3.8	2.4	1.4	5.2	2.5
P0152.035-040-A4	M 3,5	40	2.3	6.0	3.8	2.4	1.4	5.2	2.5
P0152.040-010-A4	M 4	10	2.8	7.0	4.5	2.6	1.6	6.0	2.5
P0152.040-012-A4	M 4	12	2.8	7.0	4.5	2.6	1.6	6.0	2.5
P0152.040-016-A4	M 4	16	2.8	7.0	4.5	2.6	1.6	6.0	2.5



Captive Screws - Cheese Head

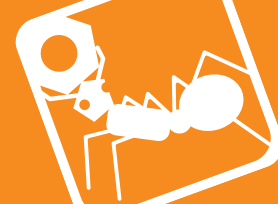
hex drive - 316 stainless



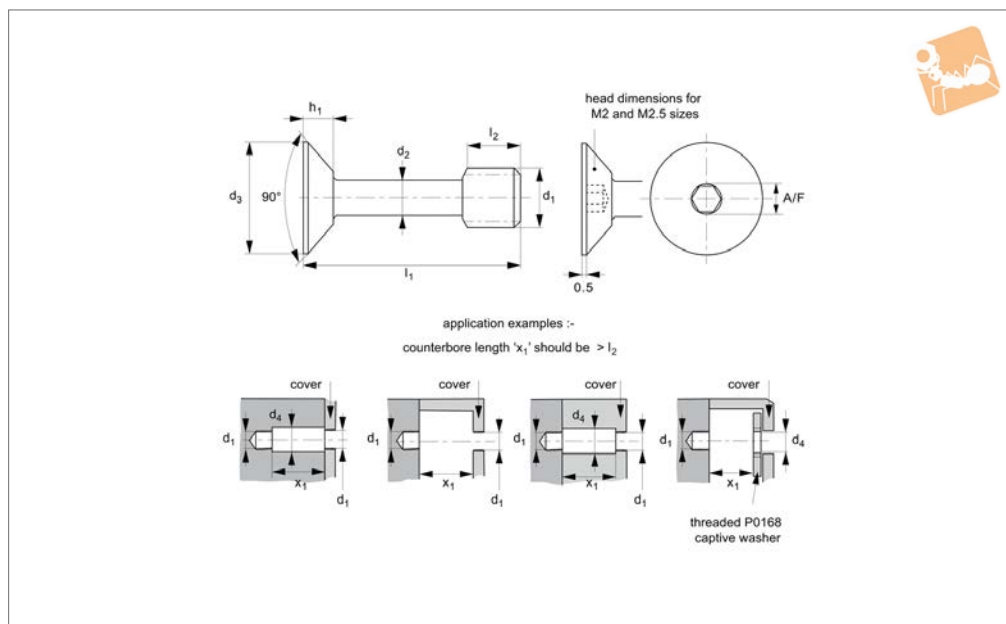
Captive Screws

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃	d ₄ min.	h ₁	h ₂	l ₂ ±0.25	A/F
P0152.040-018-A4	M 4	18	2.8	7.0	4.5	2.6	1.6	6.0	2.5
P0152.040-019-A4	M 4	19	2.8	7.0	4.5	2.6	1.6	6.0	2.5
P0152.040-020-A4	M 4	20	2.8	7.0	4.5	2.6	1.6	6.0	2.5
P0152.040-025-A4	M 4	25	2.8	7.0	4.5	2.6	1.6	6.0	2.5
P0152.040-030-A4	M 4	30	2.8	7.0	4.5	2.6	1.6	6.0	2.5
P0152.040-040-A4	M 4	40	2.8	7.0	4.5	2.6	1.6	6.0	2.5
P0152.040-050-A4	M 4	50	2.8	7.0	4.5	2.6	1.6	6.0	2.5
P0152.040-060-A4	M 4	60	2.8	7.0	4.5	2.6	1.6	6.0	2.5
P0152.050-010-A4	M 5	10	3.7	8.5	5.5	3.3	2.0	7.5	3
P0152.050-012-A4	M 5	12	3.7	8.5	5.5	3.3	2.0	7.5	3
P0152.050-016-A4	M 5	16	3.7	8.5	5.5	3.3	2.0	7.5	3
P0152.050-018-A4	M 5	18	3.7	8.5	5.5	3.3	2.0	7.5	3
P0152.050-020-A4	M 5	20	3.7	8.5	5.5	3.3	2.0	7.5	3
P0152.050-022-A4	M 5	22	3.7	8.5	5.5	3.3	2.0	7.5	3
P0152.050-025-A4	M 5	25	3.7	8.5	5.5	3.3	2.0	7.5	3
P0152.050-030-A4	M 5	30	3.7	8.5	5.5	3.3	2.0	7.5	3
P0152.050-040-A4	M 5	40	3.7	8.5	5.5	3.3	2.0	7.5	3
P0152.050-050-A4	M 5	50	3.7	8.5	5.5	3.3	2.0	7.5	3
P0152.050-060-A4	M 5	60	3.7	8.5	5.5	3.3	2.0	7.5	3
P0152.050-080-A4	M 5	80	3.7	8.5	5.5	3.3	2.0	7.5	3
P0152.060-016-A4	M 6	16	4.2	10.0	6.5	3.9	2.3	7.5	4
P0152.060-020-A4	M 6	20	4.2	10.0	6.5	3.9	2.3	7.5	4
P0152.060-025-A4	M 6	25	4.2	10.0	6.5	3.9	2.3	7.5	4
P0152.060-030-A4	M 6	30	4.2	10.0	6.5	3.9	2.3	7.5	4
P0152.060-040-A4	M 6	40	4.2	10.0	6.5	3.9	2.3	7.5	4
P0152.060-050-A4	M 6	50	4.2	10.0	6.5	3.9	2.3	7.5	4
P0152.060-060-A4	M 6	60	4.2	10.0	6.5	3.9	2.3	7.5	4
P0152.060-080-A4	M 6	80	4.2	10.0	6.5	3.9	2.3	7.5	4

CAPTIVE SCREWS



P0153.A2



Material

Stainless steel (AISI 303, 1.4305). Tensile strength 550 N/mm². Proof stress min. 190 N/mm², austenitic stainless steel. Also available on request in steel (anodised, black oxide or zinc plated), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Direc-

tive 2006/42/EC. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive screws should be considered when fitted in panels with unthreaded holes.

Important Notes

Please note that these screws have a reduced diameter shank and should not be

tightened to the recommended torque for an equivalent machine screw of size d₁. To accommodate the slight undercut at the top of the shank, the hex socket is smaller than on a similar threaded machine screw.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ max.	d ₄ min.	h ₁ max.	l ₂ ±0.25	A/F
P0153.020-010-A2	M 2	10	1.2	3.8	2.5	1.20	3.5	1.0
P0153.020-012-A2	M 2	12	1.2	3.8	2.5	1.20	3.5	1.0
P0153.020-016-A2	M 2	16	1.2	3.8	2.5	1.20	3.5	1.0
P0153.020-020-A2	M 2	20	1.2	3.8	2.5	1.20	3.5	1.0
P0153.025-010-A2	M 2,5	10	1.7	4.7	2.8	1.80	3.7	1.3
P0153.025-012-A2	M 2,5	12	1.7	4.7	2.8	1.80	3.7	1.3
P0153.025-016-A2	M 2,5	16	1.7	4.7	2.8	1.80	3.7	1.3
P0153.025-020-A2	M 2,5	20	1.7	4.7	2.8	1.80	3.7	1.3
P0153.030-008-A2	M 3	8	2.0	5.6	3.5	1.65	4.5	1.5
P0153.030-010-A2	M 3	10	2.0	5.6	3.5	1.65	4.5	1.5
P0153.030-012-A2	M 3	12	2.0	5.6	3.5	1.65	4.5	1.5
P0153.030-016-A2	M 3	16	2.0	5.6	3.5	1.65	4.5	1.5
P0153.030-020-A2	M 3	20	2.0	5.6	3.5	1.65	4.5	1.5
P0153.030-025-A2	M 3	25	2.0	5.6	3.5	1.65	4.5	1.5
P0153.030-030-A2	M 3	30	2.0	5.6	3.5	1.65	4.5	1.5
P0153.030-035-A2	M 3	35	2.0	5.6	3.5	1.65	4.5	1.5
P0153.030-040-A2	M 3	40	2.0	5.6	3.5	1.65	4.5	1.5
P0153.040-010-A2	M 4	10	2.8	7.5	4.5	2.20	6.0	2.0
P0153.040-012-A2	M 4	12	2.8	7.5	4.5	2.20	6.0	2.0
P0153.040-014-A2	M 4	14	2.8	7.5	4.5	2.20	6.0	2.0
P0153.040-016-A2	M 4	16	2.8	7.5	4.5	2.20	6.0	2.0
P0153.040-020-A2	M 4	20	2.8	7.5	4.5	2.20	6.0	2.0
P0153.040-025-A2	M 4	25	2.8	7.5	4.5	2.20	6.0	2.0
P0153.040-030-A2	M 4	30	2.8	7.5	4.5	2.20	6.0	2.0
P0153.040-035-A2	M 4	35	2.8	7.5	4.5	2.20	6.0	2.0
P0153.040-040-A2	M 4	40	2.8	7.5	4.5	2.20	6.0	2.0
P0153.040-050-A2	M 4	50	2.8	7.5	4.5	2.20	6.0	2.0
P0153.040-060-A2	M 4	60	2.8	7.5	4.5	2.20	6.0	2.0



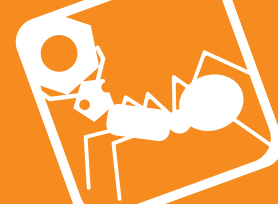
Captive Screws - Countersunk

hex drive - 303 stainless

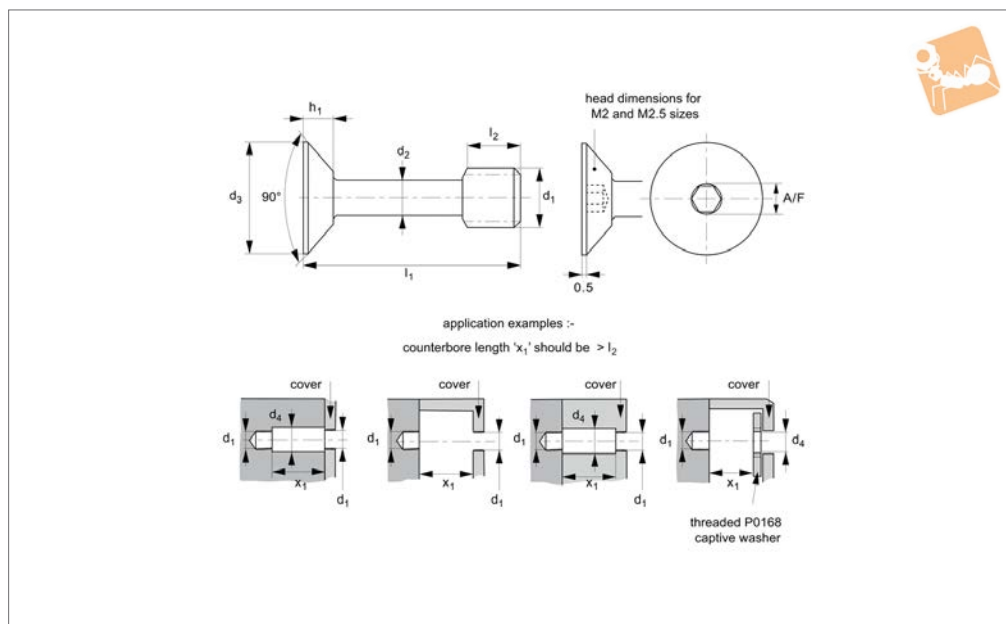


Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ max.	d ₄ min.	h ₁ max.	l ₂ ±0.25	A/F
P0153.050-012-A2	M 5	12	3.7	9.2	5.5	2.50	7.5	2.5
P0153.050-014-A2	M 5	14	3.7	9.2	5.5	2.50	7.5	2.5
P0153.050-016-A2	M 5	16	3.7	9.2	5.5	2.50	7.5	2.5
P0153.050-020-A2	M 5	20	3.7	9.2	5.5	2.50	7.5	2.5
P0153.050-025-A2	M 5	25	3.7	9.2	5.5	2.50	7.5	2.5
P0153.050-030-A2	M 5	30	3.7	9.2	5.5	2.50	7.5	2.5
P0153.050-035-A2	M 5	35	3.7	9.2	5.5	2.50	7.5	2.5
P0153.050-040-A2	M 5	40	3.7	9.2	5.5	2.50	7.5	2.5
P0153.050-050-A2	M 5	50	3.7	9.2	5.5	2.50	7.5	2.5
P0153.050-060-A2	M 5	60	3.7	9.2	5.5	2.50	7.5	2.5
P0153.060-016-A2	M 6	16	4.2	11.0	6.5	3.00	8.0	3.0
P0153.060-020-A2	M 6	20	4.2	11.0	6.5	3.00	8.0	3.0
P0153.060-025-A2	M 6	25	4.2	11.0	6.5	3.00	8.0	3.0
P0153.060-030-A2	M 6	30	4.2	11.0	6.5	3.00	8.0	3.0
P0153.060-035-A2	M 6	35	4.2	11.0	6.5	3.00	8.0	3.0
P0153.060-040-A2	M 6	40	4.2	11.0	6.5	3.00	8.0	3.0
P0153.060-050-A2	M 6	50	4.2	11.0	6.5	3.00	8.0	3.0
P0153.060-060-A2	M 6	60	4.2	11.0	6.5	3.00	8.0	3.0
P0153.080-020-A2	M 8	20	6.0	15.0	8.5	4.10	10.0	4.0
P0153.080-025-A2	M 8	25	6.0	15.0	8.5	4.10	10.0	4.0
P0153.080-030-A2	M 8	30	6.0	15.0	8.5	4.10	10.0	4.0
P0153.080-040-A2	M 8	40	6.0	15.0	8.5	4.10	10.0	4.0
P0153.080-050-A2	M 8	50	6.0	15.0	8.5	4.10	10.0	4.0
P0153.080-060-A2	M 8	60	6.0	15.0	8.5	4.10	10.0	4.0

CAPTIVE SCREWS



P0153.A4



Material

Stainless steel (AISI 316, 1.440).
Tensile strength 480 N/mm². Proof stress min. 200 N/mm², austenitic stainless steel.
Also available on request in steel (anodised, black oxide or zinc plated), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Direc-

tive 2006/42/EC. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

Important Notes

Please note that these screws have a reduced diameter shank and should not be

tightened to the recommended torque for an equivalent machine screw of size d₁. To accommodate the slight undercut at the top of the shank, the hex socket is smaller than on a similar threaded machine screw.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ max.	d ₄ min.	h ₁ max.	l ₂ ±0.25	A/F
P0153.020-010-A4	M 2	10	1.2	3.8	2.5	1.20	3.5	1.0
P0153.020-012-A4	M 2	12	1.2	3.8	2.5	1.20	3.5	1.0
P0153.020-016-A4	M 2	16	1.2	3.8	2.5	1.20	3.5	1.0
P0153.020-020-A4	M 2	20	1.2	3.8	2.5	1.20	3.5	1.0
P0153.025-010-A4	M 2,5	10	1.7	4.7	2.8	1.80	3.7	1.3
P0153.025-012-A4	M 2,5	12	1.7	4.7	2.8	1.80	3.7	1.3
P0153.025-016-A4	M 2,5	16	1.7	4.7	2.8	1.80	3.7	1.3
P0153.025-020-A4	M 2,5	20	1.7	4.7	2.8	1.80	3.7	1.3
P0153.030-008-A4	M 3	8	2.0	5.6	3.5	1.65	4.5	1.5
P0153.030-010-A4	M 3	10	2.0	5.6	3.5	1.65	4.5	1.5
P0153.030-012-A4	M 3	12	2.0	5.6	3.5	1.65	4.5	1.5
P0153.030-016-A4	M 3	16	2.0	5.6	3.5	1.65	4.5	1.5
P0153.030-020-A4	M 3	20	2.0	5.6	3.5	1.65	4.5	1.5
P0153.030-025-A4	M 3	25	2.0	5.6	3.5	1.65	4.5	1.5
P0153.030-030-A4	M 3	30	2.0	5.6	3.5	1.65	4.5	1.5
P0153.030-035-A4	M 3	35	2.0	5.6	3.5	1.65	4.5	1.5
P0153.030-040-A4	M 3	40	2.0	5.6	3.5	1.65	4.5	1.5
P0153.040-010-A4	M 4	10	2.8	7.5	4.5	2.20	6.0	2.0
P0153.040-012-A4	M 4	12	2.8	7.5	4.5	2.20	6.0	2.0
P0153.040-014-A4	M 4	14	2.8	7.5	4.5	2.20	6.0	2.0
P0153.040-016-A4	M 4	16	2.8	7.5	4.5	2.20	6.0	2.0
P0153.040-020-A4	M 4	20	2.8	7.5	4.5	2.20	6.0	2.0
P0153.040-025-A4	M 4	25	2.8	7.5	4.5	2.20	6.0	2.0
P0153.040-030-A4	M 4	30	2.8	7.5	4.5	2.20	6.0	2.0
P0153.040-035-A4	M 4	35	2.8	7.5	4.5	2.20	6.0	2.0
P0153.040-040-A4	M 4	40	2.8	7.5	4.5	2.20	6.0	2.0
P0153.040-050-A4	M 4	50	2.8	7.5	4.5	2.20	6.0	2.0
P0153.040-060-A4	M 4	60	2.8	7.5	4.5	2.20	6.0	2.0



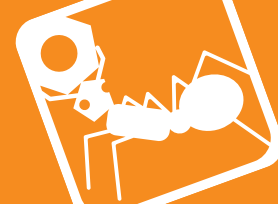
Captive Screws - Countersunk

hex drive - 316 stainless

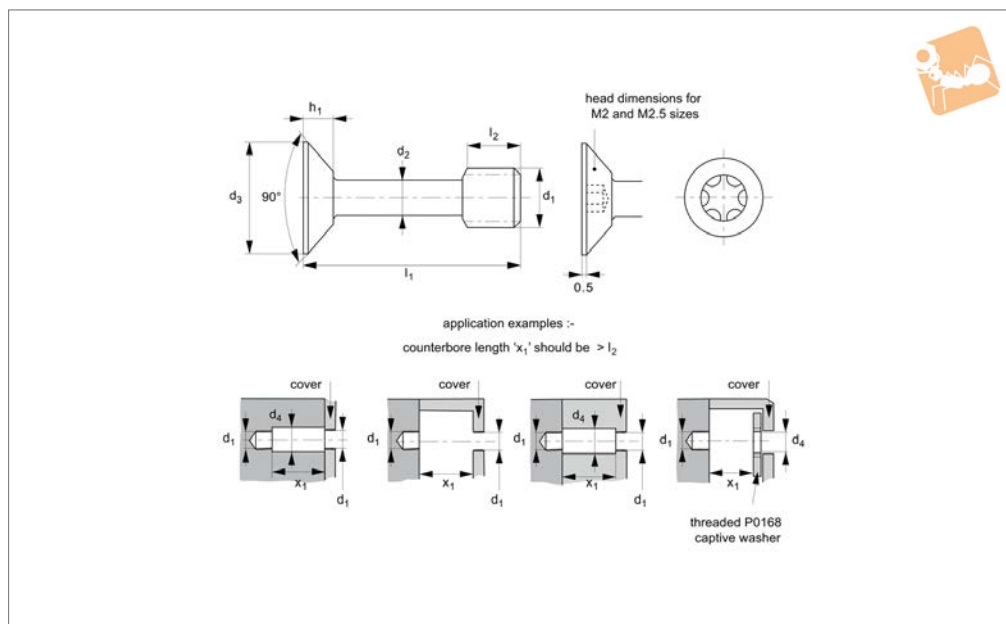


Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ max.	d ₄ min.	h ₁ max.	l ₂ ±0.25	A/F
P0153.050-012-A4	M 5	12	3.7	9.2	5.5	2.50	7.5	2.5
P0153.050-014-A4	M 5	12	3.7	9.2	5.5	2.50	7.5	2.5
P0153.050-016-A4	M 5	16	3.7	9.2	5.5	2.50	7.5	2.5
P0153.050-020-A4	M 5	20	3.7	9.2	5.5	2.50	7.5	2.5
P0153.050-025-A4	M 5	25	3.7	9.2	5.5	2.50	7.5	2.5
P0153.050-030-A4	M 5	30	3.7	9.2	5.5	2.50	7.5	2.5
P0153.050-035-A4	M 5	35	3.7	9.2	5.5	2.50	7.5	2.5
P0153.050-040-A4	M 5	40	3.7	9.2	5.5	2.50	7.5	2.5
P0153.050-050-A4	M 5	50	3.7	9.2	5.5	2.50	7.5	2.5
P0153.050-060-A4	M 5	60	3.7	9.2	5.5	2.50	7.5	2.5
P0153.060-016-A4	M 6	16	4.2	11.0	6.5	3.00	8.0	3.0
P0153.060-020-A4	M 6	20	4.2	11.0	6.5	3.00	8.0	3.0
P0153.060-025-A4	M 6	25	4.2	11.0	6.5	3.00	8.0	3.0
P0153.060-030-A4	M 6	30	4.2	11.0	6.5	3.00	8.0	3.0
P0153.060-035-A4	M 6	35	4.2	11.0	6.5	3.00	8.0	3.0
P0153.060-040-A4	M 6	40	4.2	11.0	6.5	3.00	8.0	3.0
P0153.060-050-A4	M 6	50	4.2	11.0	6.5	3.00	8.0	3.0
P0153.060-060-A4	M 6	60	4.2	11.0	6.5	3.00	8.0	3.0
P0153.080-020-A4	M 8	20	6.0	15.0	8.5	4.10	10.0	4.0
P0153.080-025-A4	M 8	25	6.0	15.0	8.5	4.10	10.0	4.0
P0153.080-030-A4	M 8	30	6.0	15.0	8.5	4.10	10.0	4.0
P0153.080-040-A4	M 8	40	6.0	15.0	8.5	4.10	10.0	4.0
P0153.080-050-A4	M 8	50	6.0	15.0	8.5	4.10	10.0	4.0
P0153.080-060-A4	M 8	60	6.0	15.0	8.5	4.10	10.0	4.0

CAPTIVE SCREWS



P0153.TX



Material

Stainless steel (AISI 303, 1.4305).
Tensile strength 550 N/mm².
Proof stress min. 190 N/mm², austenitic stainless steel.

Technical Notes

Used to comply with the Machinery Directive 2006/42/EC. Generally to ISO 10642.

Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

Important Notes

Please note that these screws have a

reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁. To accommodate the slight undercut at the top of the shank, the torx drive is smaller than on a similar threaded machine screw.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ max.	d ₄ min.	h ₁ max.	l ₂ ±0.25	TX size
P0153.020-010-TX	M 2	10	1.2	3.8	2.5	1.20	3.5	TX-5
P0153.020-012-TX	M 2	12	1.2	3.8	2.5	1.20	3.5	TX-5
P0153.020-016-TX	M 2	16	1.2	3.8	2.5	1.20	3.5	TX-5
P0153.020-020-TX	M 2	20	1.2	3.8	2.5	1.20	3.5	TX-5
P0153.025-010-TX	M 2,5	10	1.7	4.7	2.8	1.80	3.7	TX-6
P0153.025-012-TX	M 2,5	12	1.7	4.7	2.8	1.80	3.7	TX-6
P0153.025-016-TX	M 2,5	16	1.7	4.7	2.8	1.80	3.7	TX-6
P0153.025-020-TX	M 2,5	20	1.7	4.7	2.8	1.80	3.7	TX-6
P0153.030-008-TX	M 3	8	2.0	5.6	3.5	1.65	4.5	TX-8
P0153.030-010-TX	M 3	10	2.0	5.6	3.5	1.65	4.5	TX-8
P0153.030-012-TX	M 3	12	2.0	5.6	3.5	1.65	4.5	TX-8
P0153.030-016-TX	M 3	16	2.0	5.6	3.5	1.65	4.5	TX-8
P0153.030-020-TX	M 3	20	2.0	5.6	3.5	1.65	4.5	TX-8
P0153.030-025-TX	M 3	25	2.0	5.6	3.5	1.65	4.5	TX-8
P0153.030-030-TX	M 3	30	2.0	5.6	3.5	1.65	4.5	TX-8
P0153.030-035-TX	M 3	35	2.0	5.6	3.5	1.65	4.5	TX-8
P0153.030-040-TX	M 3	40	2.0	5.6	3.5	1.65	4.5	TX-8
P0153.040-010-TX	M 4	10	2.8	7.5	4.5	2.20	6.0	TX-10
P0153.040-012-TX	M 4	12	2.8	7.5	4.5	2.20	6.0	TX-10
P0153.040-014-TX	M 4	14	2.8	7.5	4.5	2.20	6.0	TX-10
P0153.040-016-TX	M 4	16	2.8	7.5	4.5	2.20	6.0	TX-10
P0153.040-020-TX	M 4	20	2.8	7.5	4.5	2.20	6.0	TX-10
P0153.040-025-TX	M 4	25	2.8	7.5	4.5	2.20	6.0	TX-10
P0153.040-030-TX	M 4	30	2.8	7.5	4.5	2.20	6.0	TX-10
P0153.040-035-TX	M 4	35	2.8	7.5	4.5	2.20	6.0	TX-10
P0153.040-040-TX	M 4	40	2.8	7.5	4.5	2.20	6.0	TX-10
P0153.040-050-TX	M 4	50	2.8	7.5	4.5	2.20	6.0	TX-10
P0153.040-060-TX	M 4	60	2.8	7.5	4.5	2.20	6.0	TX-10
P0153.050-012-TX	M 5	12	3.7	9.2	5.5	2.50	7.5	TX-20



Captive Screws - Countersunk

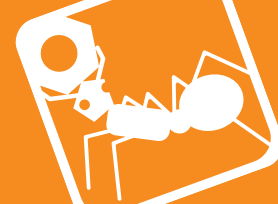
TX drive- 303 stainless



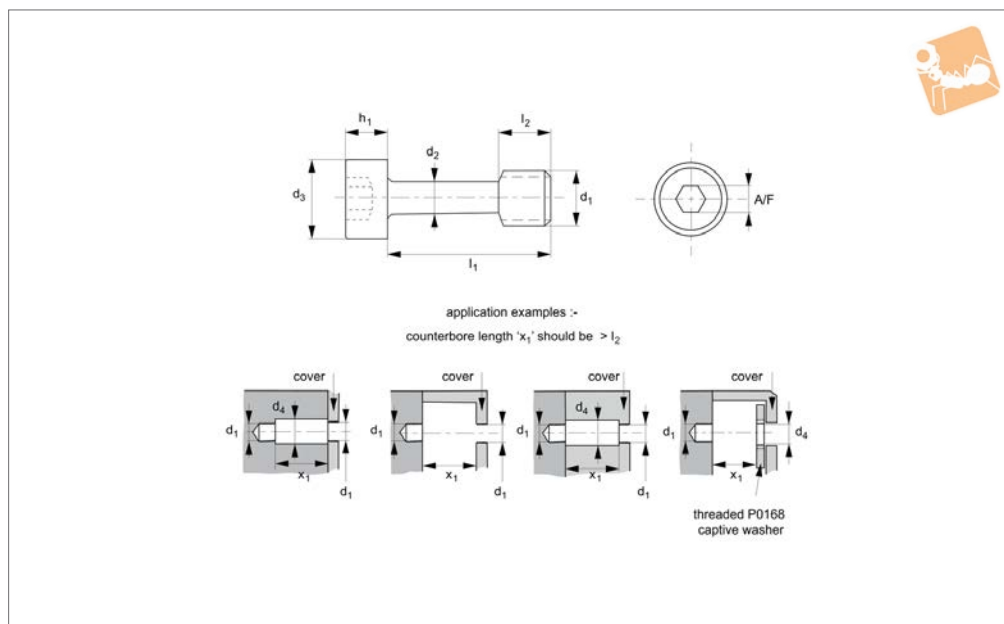
Captive Screws

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ max.	d ₄ min.	h ₁ max.	l ₂ ±0.25	TX size
P0153.050-014-TX	M 5	14	3.7	9.2	5.5	2.50	7.5	TX-20
P0153.050-016-TX	M 5	16	3.7	9.2	5.5	2.50	7.5	TX-20
P0153.050-020-TX	M 5	20	3.7	9.2	5.5	2.50	7.5	TX-20
P0153.050-025-TX	M 5	25	3.7	9.2	5.5	2.50	7.5	TX-20
P0153.050-030-TX	M 5	30	3.7	9.2	5.5	2.50	7.5	TX-20
P0153.050-035-TX	M 5	35	3.7	9.2	5.5	2.50	7.5	TX-20
P0153.050-040-TX	M 5	40	3.7	9.2	5.5	2.50	7.5	TX-20
P0153.050-050-TX	M 5	50	3.7	9.2	5.5	2.50	7.5	TX-20
P0153.050-060-TX	M 5	60	3.7	9.2	5.5	2.50	7.5	TX-20
P0153.060-016-TX	M 6	16	4.2	11.0	6.5	3.00	8.0	TX-25
P0153.060-020-TX	M 6	20	4.2	11.0	6.5	3.00	8.0	TX-25
P0153.060-025-TX	M 6	25	4.2	11.0	6.5	3.00	8.0	TX-25
P0153.060-030-TX	M 6	30	4.2	11.0	6.5	3.00	8.0	TX-25
P0153.060-035-TX	M 6	35	4.2	11.0	6.5	3.00	8.0	TX-25
P0153.060-040-TX	M 6	40	4.2	11.0	6.5	3.00	8.0	TX-25
P0153.060-050-TX	M 6	50	4.2	11.0	6.5	3.00	8.0	TX-25
P0153.060-060-TX	M 6	60	4.2	11.0	6.5	3.00	8.0	TX-25
P0153.080-020-TX	M 8	20	6.0	15.0	8.5	4.10	10.0	TX-30
P0153.080-025-TX	M 8	25	6.0	15.0	8.5	4.10	10.0	TX-30
P0153.080-030-TX	M 8	30	6.0	15.0	8.5	4.10	10.0	TX-30
P0153.080-040-TX	M 8	40	6.0	15.0	8.5	4.10	10.0	TX-30
P0153.080-050-TX	M 8	50	6.0	15.0	8.5	4.10	10.0	TX-30
P0153.080-060-TX	M 8	60	6.0	15.0	8.5	4.10	10.0	TX-30

CAPTIVE SCREWS



P0154.A2



Material

Stainless steel (AISI 303, 1.4305). Tensile strength 550 N/mm². Proof stress min. 190 N/mm², austenitic stainless steel. Also available on request in steel (anodised, black oxide or zinc plated), stainless steel (AISI 316, 1.440), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Direc-

tive 2006/42/EC. Generally to ISO 4762.

Often used with our captive washers (P0168) or retaining flanges (P0169.A2 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

Tips

TX drive style also available.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ max.	d ₄ min.	h ₁ max.	l ₂ ±0.25	A/F
P0154.025-005-A2	M 2,5	5	1.8	4.5	2.8	2.5	3.0	2
P0154.025-008-A2	M 2,5	8	1.8	4.5	2.8	2.5	3.0	2
P0154.025-010-A2	M 2,5	10	1.8	4.5	2.8	2.5	3.0	2
P0154.025-012-A2	M 2,5	12	1.8	4.5	2.8	2.5	3.0	2
P0154.030-008-A2	M 3	8	2.0	5.5	3.5	3.0	4.5	2.5
P0154.030-010-A2	M 3	10	2.0	5.5	3.5	3.0	4.5	2.5
P0154.030-012-A2	M 3	12	2.0	5.5	3.5	3.0	4.5	2.5
P0154.030-016-A2	M 3	16	2.0	5.5	3.5	3.0	4.5	2.5
P0154.030-020-A2	M 3	20	2.0	5.5	3.5	3.0	4.5	2.5
P0154.030-025-A2	M 3	25	2.0	5.5	3.5	3.0	4.5	2.5
P0154.030-030-A2	M 3	30	2.0	5.5	3.5	3.0	4.5	2.5
P0154.040-010-A2	M 4	10	2.8	7.0	4.5	4.0	6.0	3
P0154.040-012-A2	M 4	12	2.8	7.0	4.5	4.0	6.0	3
P0154.040-016-A2	M 4	16	2.8	7.0	4.5	4.0	6.0	3
P0154.040-020-A2	M 4	20	2.8	7.0	4.5	4.0	6.0	3
P0154.040-025-A2	M 4	25	2.8	7.0	4.5	4.0	6.0	3
P0154.040-030-A2	M 4	30	2.8	7.0	4.5	4.0	6.0	3
P0154.040-035-A2	M 4	35	2.8	7.0	4.5	4.0	6.0	3
P0154.040-040-A2	M 4	40	2.8	7.0	4.5	4.0	6.0	3
P0154.040-050-A2	M 4	50	2.8	7.0	4.5	4.0	6.0	3
P0154.050-012-A2	M 5	12	3.7	8.5	5.5	5.0	7.5	4
P0154.050-016-A2	M 5	16	3.7	8.5	5.5	5.0	7.5	4
P0154.050-020-A2	M 5	20	3.7	8.5	5.5	5.0	7.5	4
P0154.050-025-A2	M 5	25	3.7	8.5	5.5	5.0	7.5	4
P0154.050-030-A2	M 5	30	3.7	8.5	5.5	5.0	7.5	4
P0154.050-035-A2	M 5	35	3.7	8.5	5.5	5.0	7.5	4



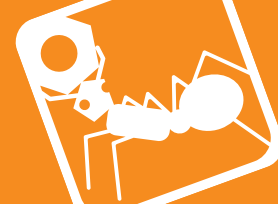
Captive Screws - Cap Head

hex drive - 303 stainless

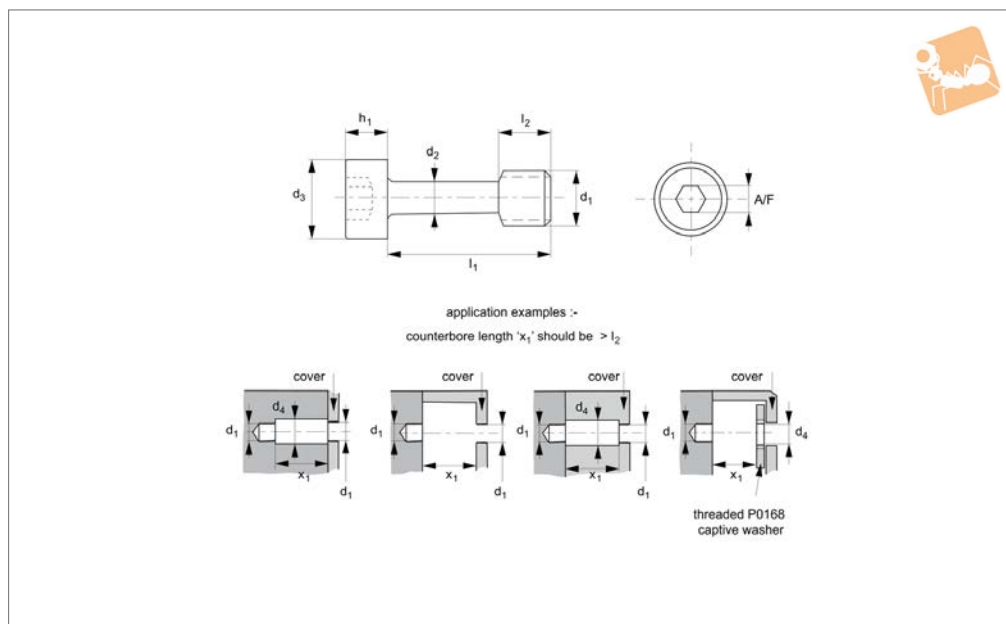


Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ max.	d ₄ min.	h ₁ max.	l ₂ ±0.25	A/F
P0154.050-040-A2	M 5	40	3.7	8.5	5.5	5.0	7.5	4
P0154.050-050-A2	M 5	50	3.7	8.5	5.5	5.0	7.5	4
P0154.060-012-A2	M 6	12	4.2	10.0	6.5	6.0	7.5	5
P0154.060-016-A2	M 6	16	4.2	10.0	6.5	6.0	7.5	5
P0154.060-020-A2	M 6	20	4.2	10.0	6.5	6.0	7.5	5
P0154.060-025-A2	M 6	25	4.2	10.0	6.5	6.0	7.5	5
P0154.060-030-A2	M 6	30	4.2	10.0	6.5	6.0	7.5	5
P0154.060-035-A2	M 6	35	4.2	10.0	6.5	6.0	7.5	5
P0154.060-040-A2	M 6	40	4.2	10.0	6.5	6.0	7.5	5
P0154.060-050-A2	M 6	50	4.2	10.0	6.5	6.0	7.5	5
P0154.060-060-A2	M 6	60	4.2	10.0	6.5	6.0	7.5	5
P0154.060-080-A2	M 6	80	4.2	10.0	6.5	6.0	7.5	5
P0154.080-016-A2	M 8	16	6.0	13.0	8.5	8.0	10.0	6
P0154.080-020-A2	M 8	20	6.0	13.0	8.5	8.0	10.0	6
P0154.080-025-A2	M 8	25	6.0	13.0	8.5	8.0	10.0	6
P0154.080-030-A2	M 8	30	6.0	13.0	8.5	8.0	10.0	6
P0154.080-035-A2	M 8	35	6.0	13.0	8.5	8.0	10.0	6
P0154.080-040-A2	M 8	40	6.0	13.0	8.5	8.0	10.0	6
P0154.080-045-A2	M 8	45	6.0	13.0	8.5	8.0	10.0	6
P0154.080-050-A2	M 8	50	6.0	13.0	8.5	8.0	10.0	6
P0154.080-060-A2	M 8	60	6.0	13.0	8.5	8.0	10.0	6
P0154.080-080-A2	M 8	80	6.0	13.0	8.5	8.0	10.0	6
P0154.100-020-A2	M10	20	7.5	16.0	10.6	10.0	12.5	8
P0154.100-025-A2	M10	25	7.5	16.0	10.6	10.0	12.5	8
P0154.100-030-A2	M10	30	7.5	16.0	10.6	10.0	12.5	8
P0154.100-035-A2	M10	35	7.5	16.0	10.6	10.0	12.5	8
P0154.100-040-A2	M10	40	7.5	16.0	10.6	10.0	12.5	8
P0154.100-045-A2	M10	45	7.5	16.0	10.6	10.0	12.5	8
P0154.100-050-A2	M10	50	7.5	16.0	10.6	10.0	12.5	8
P0154.100-060-A2	M10	60	7.5	16.0	10.6	10.0	12.5	8
P0154.100-080-A2	M10	80	7.5	16.0	10.6	10.0	12.5	8
P0154.120-025-A2	M12	25	8.0	18.0	13.2	12.0	15.0	10
P0154.120-030-A2	M12	30	8.0	18.0	13.2	12.0	15.0	10
P0154.120-035-A2	M12	35	8.0	18.0	13.2	12.0	15.0	10
P0154.120-040-A2	M12	40	8.0	18.0	13.2	12.0	15.0	10
P0154.120-045-A2	M12	45	8.0	18.0	13.2	12.0	15.0	10
P0154.120-050-A2	M12	50	8.0	18.0	13.2	12.0	15.0	10
P0154.120-060-A2	M12	60	8.0	18.0	13.2	12.0	15.0	10
P0154.120-080-A2	M12	80	8.0	18.0	13.2	12.0	15.0	10
P0154.160-030-A2	M16	30	12.0	24.0	17.5	16.0	20.0	14
P0154.160-035-A2	M16	35	12.0	24.0	17.5	16.0	20.0	14
P0154.160-040-A2	M16	40	12.0	24.0	17.5	16.0	20.0	14
P0154.160-045-A2	M16	45	12.0	24.0	17.5	16.0	20.0	14
P0154.160-050-A2	M16	50	12.0	24.0	17.5	16.0	20.0	14
P0154.160-060-A2	M16	60	12.0	24.0	17.5	16.0	20.0	14
P0154.160-080-A2	M16	80	12.0	24.0	17.5	16.0	20.0	14
P0154.160-100-A2	M16	100	12.0	24.0	17.5	16.0	20.0	14
P0154.200-040-A2	M20	40	16.0	30.0	22.0	20.0	25.0	19
P0154.200-060-A2	M20	60	16.0	30.0	22.0	20.0	25.0	19
P0154.200-080-A2	M20	80	16.0	30.0	22.0	20.0	25.0	19
P0154.200-100-A2	M20	100	16.0	30.0	22.0	20.0	25.0	19
P0154.200-120-A2	M20	120	16.0	30.0	22.0	20.0	25.0	19

CAPTIVE SCREWS



P0154.A4



Material

Stainless steel (AISI 316, 1.440).
Tensile strength 480 N/mm². Proof stress min. 200 N/mm², austenitic stainless steel.
Also available on request in steel (anodised, black oxide or zinc plated), stainless steel (AISI 303, 1.4305), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Direc-

tive 2006/42/EC. Generally to ISO 4762.
Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers (P0168) should be considered when fitted in panels with unthreaded holes.

Tips

For TX drive style, see P0156.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ max.	d ₄ min.	h ₁ max.	l ₂ ±0.25	A/F
P0154.025-005-A4	M 2,5	5	1.8	4.5	2.8	2.5	3.0	2
P0154.025-008-A4	M 2,5	8	1.8	4.5	2.8	2.5	3.0	2
P0154.025-010-A4	M 2,5	10	1.8	4.5	2.8	2.5	3.0	2
P0154.025-012-A4	M 2,5	12	1.8	4.5	2.8	2.5	3.0	2
P0154.030-008-A4	M 3	8	2.0	5.5	3.5	3.0	4.5	2.5
P0154.030-010-A4	M 3	10	2.0	5.5	3.5	3.0	4.5	2.5
P0154.030-012-A4	M 3	12	2.0	5.5	3.5	3.0	4.5	2.5
P0154.030-016-A4	M 3	16	2.0	5.5	3.5	3.0	4.5	2.5
P0154.030-020-A4	M 3	20	2.0	5.5	3.5	3.0	4.5	2.5
P0154.030-025-A4	M 3	25	2.0	5.5	3.5	3.0	4.5	2.5
P0154.030-030-A4	M 3	30	2.0	5.5	3.5	3.0	4.5	2.5
P0154.040-010-A4	M 4	10	2.8	7.0	4.5	4.0	6.0	3
P0154.040-012-A4	M 4	12	2.8	7.0	4.5	4.0	6.0	3
P0154.040-016-A4	M 4	16	2.8	7.0	4.5	4.0	6.0	3
P0154.040-020-A4	M 4	20	2.8	7.0	4.5	4.0	6.0	3
P0154.040-025-A4	M 4	25	2.8	7.0	4.5	4.0	6.0	3
P0154.040-030-A4	M 4	30	2.8	7.0	4.5	4.0	6.0	3
P0154.040-035-A4	M 4	35	2.8	7.0	4.5	4.0	6.0	3
P0154.040-040-A4	M 4	40	2.8	7.0	4.5	4.0	6.0	3
P0154.040-050-A4	M 4	50	2.8	7.0	4.5	4.0	6.0	3
P0154.050-012-A4	M 5	12	3.7	8.5	5.5	5.0	7.5	4
P0154.050-016-A4	M 5	16	3.7	8.5	5.5	5.0	7.5	4
P0154.050-020-A4	M 5	20	3.7	8.5	5.5	5.0	7.5	4
P0154.050-025-A4	M 5	25	3.7	8.5	5.5	5.0	7.5	4
P0154.050-030-A4	M 5	30	3.7	8.5	5.5	5.0	7.5	4
P0154.050-035-A4	M 5	35	3.7	8.5	5.5	5.0	7.5	4



Captive Screws - Cap Head

hex drive - 316 stainless

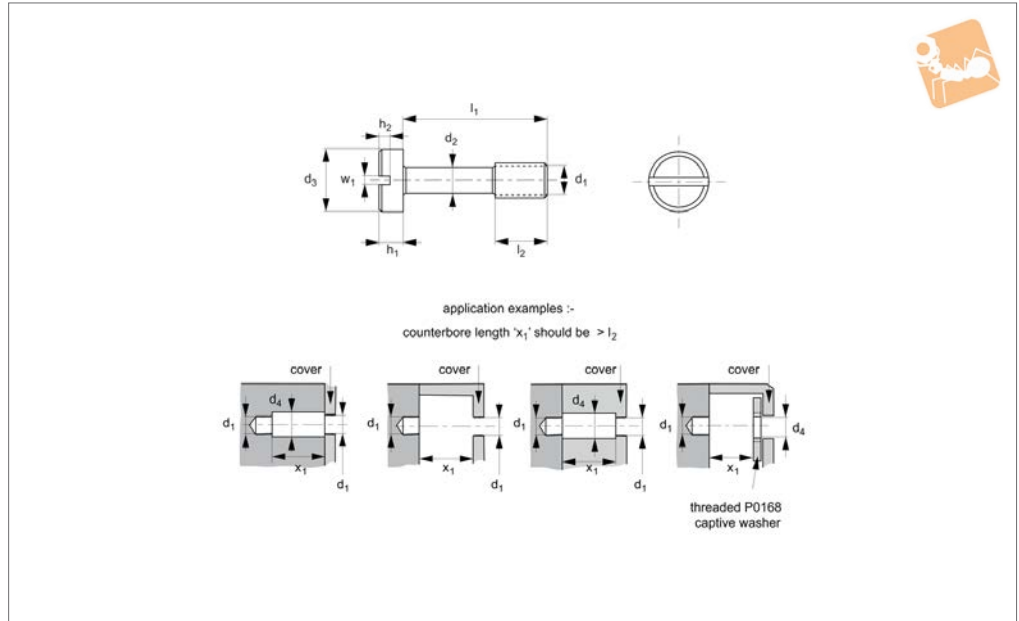


Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ max.	d ₄ min.	h ₁ max.	l ₂ ±0.25	A/F
P0154.050-040-A4	M 5	40	3.7	8.5	5.5	5.0	7.5	4
P0154.050-050-A4	M 5	50	3.7	8.5	5.5	5.0	7.5	4
P0154.060-012-A4	M 6	12	4.2	10.0	6.5	6.0	7.5	5
P0154.060-016-A4	M 6	16	4.2	10.0	6.5	6.0	7.5	5
P0154.060-020-A4	M 6	20	4.2	10.0	6.5	6.0	7.5	5
P0154.060-025-A4	M 6	25	4.2	10.0	6.5	6.0	7.5	5
P0154.060-030-A4	M 6	30	4.2	10.0	6.5	6.0	7.5	5
P0154.060-035-A4	M 6	35	4.2	10.0	6.5	6.0	7.5	5
P0154.060-040-A4	M 6	40	4.2	10.0	6.5	6.0	7.5	5
P0154.060-050-A4	M 6	50	4.2	10.0	6.5	6.0	7.5	5
P0154.060-060-A4	M 6	60	4.2	10.0	6.5	6.0	7.5	5
P0154.060-080-A4	M 6	80	4.2	10.0	6.5	6.0	7.5	5
P0154.080-016-A4	M 8	16	6.0	13.0	8.5	8.0	10.0	6
P0154.080-020-A4	M 8	20	6.0	13.0	8.5	8.0	10.0	6
P0154.080-025-A4	M 8	25	6.0	13.0	8.5	8.0	10.0	6
P0154.080-030-A4	M 8	30	6.0	13.0	8.5	8.0	10.0	6
P0154.080-035-A4	M 8	35	6.0	13.0	8.5	8.0	10.0	6
P0154.080-040-A4	M 8	40	6.0	13.0	8.5	8.0	10.0	6
P0154.080-045-A4	M 8	45	6.0	13.0	8.5	8.0	10.0	6
P0154.080-050-A4	M 8	50	6.0	13.0	8.5	8.0	10.0	6
P0154.080-060-A4	M 8	60	6.0	13.0	8.5	8.0	10.0	6
P0154.080-080-A4	M 8	80	6.0	13.0	8.5	8.0	10.0	6
P0154.100-020-A4	M10	20	7.5	16.0	10.6	10.0	12.5	8
P0154.100-025-A4	M10	25	7.5	16.0	10.6	10.0	12.5	8
P0154.100-030-A4	M10	30	7.5	16.0	10.6	10.0	12.5	8
P0154.100-035-A4	M10	35	7.5	16.0	10.6	10.0	12.5	8
P0154.100-040-A4	M10	40	7.5	16.0	10.6	10.0	12.5	8
P0154.100-045-A4	M10	45	7.5	16.0	10.6	10.0	12.5	8
P0154.100-050-A4	M10	50	7.5	16.0	10.6	10.0	12.5	8
P0154.100-060-A4	M10	60	7.5	16.0	10.6	10.0	12.5	8
P0154.100-080-A4	M10	80	7.5	16.0	10.6	10.0	12.5	8
P0154.120-025-A4	M12	25	8.0	18.0	13.2	12.0	15.0	10
P0154.120-030-A4	M12	30	8.0	18.0	13.2	12.0	15.0	10
P0154.120-035-A4	M12	35	8.0	18.0	13.2	12.0	15.0	10
P0154.120-040-A4	M12	40	8.0	18.0	13.2	12.0	15.0	10
P0154.120-045-A4	M12	45	8.0	18.0	13.2	12.0	15.0	10
P0154.120-050-A4	M12	50	8.0	18.0	13.2	12.0	15.0	10
P0154.120-060-A4	M12	60	8.0	18.0	13.2	12.0	15.0	10
P0154.120-080-A4	M12	80	8.0	18.0	13.2	12.0	15.0	10
P0154.160-030-A4	M16	30	12.0	24.0	17.5	16.0	20.0	14
P0154.160-035-A4	M16	35	12.0	24.0	17.5	16.0	20.0	14
P0154.160-040-A4	M16	40	12.0	24.0	17.5	16.0	20.0	14
P0154.160-045-A4	M16	45	12.0	24.0	17.5	16.0	20.0	14
P0154.160-050-A4	M16	50	12.0	24.0	17.5	16.0	20.0	14
P0154.160-060-A4	M16	60	12.0	24.0	17.5	16.0	20.0	14
P0154.160-080-A4	M16	80	12.0	24.0	17.5	16.0	20.0	14
P0154.160-100-A4	M16	100	12.0	24.0	17.5	16.0	20.0	14
P0154.200-040-A4	M20	40	16.0	30.0	22.0	20.0	25.0	19
P0154.200-060-A4	M20	60	16.0	30.0	22.0	20.0	25.0	19
P0154.200-080-A4	M20	80	16.0	30.0	22.0	20.0	25.0	19
P0154.200-100-A4	M20	100	16.0	30.0	22.0	20.0	25.0	19
P0154.200-120-A4	M20	120	16.0	30.0	22.0	20.0	25.0	19

CAPTIVE SCREWS



P0155.A2



Material

Stainless steel (AISI 303, 1.4305). Tensile strength 550 N/mm². Proof stress min. 190 N/mm², austenitic stainless steel. Also available on request in steel (anodised, black oxide or zinc plated), stainless steel (AISI 316, 1.440), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Direc-

tive 2006/42/EC. Generally to ISO 1207. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

Tips

Other head drive styles - add suffix:
-TX for Torx (hexalobular).

-PZ for Pozidrive.

-SE for snake-eye security.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃	d ₄ min.	h ₁	h ₂	l ₂ ±0.25	w ₁
P0155.020-010-A2	M 2	10	1.2	3.8	2.5	1.3	0.85	3.0	0.5
P0155.020-012-A2	M 2	12	1.2	3.8	2.5	1.3	0.85	3.0	0.5
P0155.020-016-A2	M 2	16	1.2	3.8	2.5	1.3	0.85	3.0	0.5
P0155.020-020-A2	M 2	20	1.2	3.8	2.5	1.3	0.85	3.0	0.5
P0155.025-010-A2	M 2,5	10	1.7	4.5	2.8	1.6	1.00	3.7	0.6
P0155.025-012-A2	M 2,5	12	1.7	4.5	2.8	1.6	1.00	3.7	0.6
P0155.025-016-A2	M 2,5	16	1.7	4.5	2.8	1.6	1.00	3.7	0.6
P0155.025-020-A2	M 2,5	20	1.7	4.5	2.8	1.6	1.00	3.7	0.6
P0155.025-025-A2	M 2,5	25	1.7	4.5	2.8	1.6	1.00	3.7	0.6
P0155.025-030-A2	M 2,5	30	1.7	4.5	2.8	1.6	1.00	3.7	0.6
P0155.030-006-A2	M 3	6	2.0	5.5	3.5	2.0	1.30	4.5	0.8
P0155.030-008-A2	M 3	8	2.0	5.5	3.5	2.0	1.30	4.5	0.8
P0155.030-010-A2	M 3	10	2.0	5.5	3.5	2.0	1.30	4.5	0.8
P0155.030-011-A2	M 3	11	2.0	5.5	3.5	2.0	1.30	4.5	0.8
P0155.030-013-A2	M 3	13	2.0	5.5	3.5	2.0	1.30	4.5	0.8
P0155.030-016-A2	M 3	16	2.0	5.5	3.5	2.0	1.30	4.5	0.8
P0155.030-018-A2	M 3	18	2.0	5.5	3.5	2.0	1.30	4.5	0.8
P0155.030-020-A2	M 3	20	2.0	5.5	3.5	2.0	1.30	4.5	0.8
P0155.030-025-A2	M 3	25	2.0	5.5	3.5	2.0	1.30	4.5	0.8
P0155.030-030-A2	M 3	30	2.0	5.5	3.5	2.0	1.30	4.5	0.8
P0155.030-040-A2	M 3	40	2.0	5.5	3.5	2.0	1.30	4.5	0.8
P0155.035-010-A2	M3,5	10	2.3	6.0	3.8	2.4	1.4	5.2	1.0
P0155.035-016-A2	M3,5	16	2.3	6.0	3.8	2.4	1.4	5.2	1.0
P0155.035-020-A2	M3,5	20	2.3	6.0	3.8	2.4	1.4	5.2	1.0
P0155.035-025-A2	M3,5	25	2.3	6.0	3.8	2.4	1.4	5.2	1.0
P0155.035-030-A2	M3,5	30	2.3	6.0	3.8	2.4	1.4	5.2	1.0



Captive Screws - Cheese Head

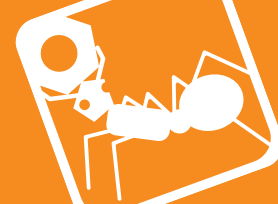
slot drive - 303 stainless



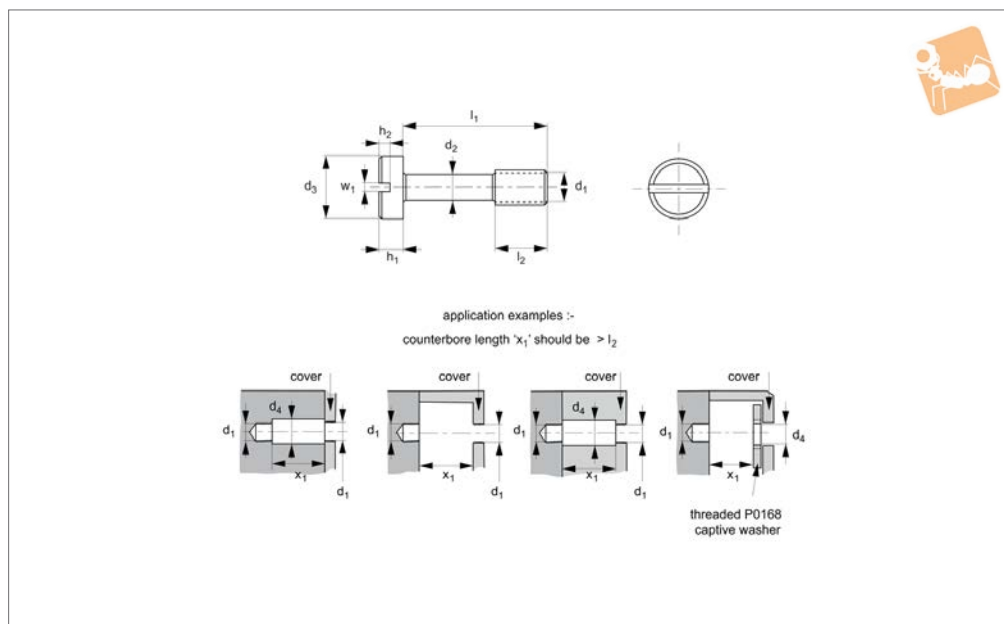
Captive Screws

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃	d ₄ min.	h ₁	h ₂	l ₂ ±0.25	w ₁
P0155.035-040-A2	M3,5	40	2.3	6.0	3.8	2.4	1.4	5.2	1.0
P0155.040-010-A2	M 4	10	2.8	7.0	4.5	2.6	1.6	6.0	1.2
P0155.040-012-A2	M 4	12	2.8	7.0	4.5	2.6	1.6	6.0	1.2
P0155.040-016-A2	M 4	16	2.8	7.0	4.5	2.6	1.6	6.0	1.2
P0155.040-018-A2	M 4	18	2.8	7.0	4.5	2.6	1.6	6.0	1.2
P0155.040-019-A2	M 4	19	2.8	7.0	4.5	2.6	1.6	6.0	1.2
P0155.040-020-A2	M 4	20	2.8	7.0	4.5	2.6	1.6	6.0	1.2
P0155.040-025-A2	M 4	25	2.8	7.0	4.5	2.6	1.6	6.0	1.2
P0155.040-030-A2	M 4	30	2.8	7.0	4.5	2.6	1.6	6.0	1.2
P0155.040-040-A2	M 4	40	2.8	7.0	4.5	2.6	1.6	6.0	1.2
P0155.040-050-A2	M 4	50	2.8	7.0	4.5	2.6	1.6	6.0	1.2
P0155.040-060-A2	M 4	60	2.8	7.0	4.5	2.6	1.6	6.0	1.2
P0155.050-010-A2	M 5	10	3.7	8.5	5.5	3.3	2.0	7.5	1.2
P0155.050-012-A2	M 5	12	3.7	8.5	5.5	3.3	2.0	7.5	1.2
P0155.050-016-A2	M 5	16	3.7	8.5	5.5	3.3	2.0	7.5	1.2
P0155.050-018-A2	M 5	18	3.7	8.5	5.5	3.3	2.0	7.5	1.2
P0155.050-020-A2	M 5	20	3.7	8.5	5.5	3.3	2.0	7.5	1.2
P0155.050-022-A2	M 5	22	3.7	8.5	5.5	3.3	2.0	7.5	1.2
P0155.050-025-A2	M 5	25	3.7	8.5	5.5	3.3	2.0	7.5	1.2
P0155.050-030-A2	M 5	30	3.7	8.5	5.5	3.3	2.0	7.5	1.2
P0155.050-040-A2	M 5	40	3.7	8.5	5.5	3.3	2.0	7.5	1.2
P0155.050-050-A2	M 5	50	3.7	8.5	5.5	3.3	2.0	7.5	1.2
P0155.050-060-A2	M 5	60	3.7	8.5	5.5	3.3	2.0	7.5	1.2
P0155.050-080-A2	M 5	80	3.7	8.5	5.5	3.3	2.0	7.5	1.2
P0155.060-010-A2	M 6	10	4.2	10.0	6.5	3.9	2.3	7.5	1.6
P0155.060-012-A2	M 6	12	4.2	10.0	6.5	3.9	2.3	7.5	1.6
P0155.060-016-A2	M 6	16	4.2	10.0	6.5	3.9	2.3	7.5	1.6
P0155.060-020-A2	M 6	20	4.2	10.0	6.5	3.9	2.3	7.5	1.6
P0155.060-025-A2	M 6	25	4.2	10.0	6.5	3.9	2.3	7.5	1.6
P0155.060-030-A2	M 6	30	4.2	10.0	6.5	3.9	2.3	7.5	1.6
P0155.060-040-A2	M 6	40	4.2	10.0	6.5	3.9	2.3	7.5	1.6
P0155.060-050-A2	M 6	50	4.2	10.0	6.5	3.9	2.3	7.5	1.6
P0155.060-060-A2	M 6	60	4.2	10.0	6.5	3.9	2.3	7.5	1.6
P0155.060-080-A2	M 6	80	4.2	10.0	6.5	3.9	2.3	7.5	1.6

CAPTIVE SCREWS



P0155.A4



Material

Stainless steel (AISI 316, 1.440).
Tensile strength 480 N/mm². Proof stress min. 200 N/mm², austenitic stainless steel.
Also available on request in steel (anodised, black oxide or zinc plated), stainless steel (AISI 303, 1.4305), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Direc-

tive 2006/42/EC. Generally to ISO 1207.
Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

Tips

Other head drive styles - add suffix:
-TX for Torx (hexalobular).

-PZ for Pozidrive.

-SE for snake-eye security.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃	d ₄ min.	h ₁	h ₂	l ₂ ±0.25	w ₁
P0155.020-010-A4	M 2	10	1.2	3.8	2.5	1.3	0.85	3.0	0.5
P0155.020-012-A4	M 2	12	1.2	3.8	2.5	1.3	0.85	3.0	0.5
P0155.020-016-A4	M 2	16	1.2	3.8	2.5	1.3	0.85	3.0	0.5
P0155.020-020-A4	M 2	20	1.2	3.8	2.5	1.3	0.85	3.0	0.5
P0155.025-010-A4	M 2,5	10	1.7	4.5	2.8	1.6	1.00	3.7	0.6
P0155.025-012-A4	M 2,5	12	1.7	4.5	2.8	1.6	1.00	3.7	0.6
P0155.025-016-A4	M 2,5	16	1.7	4.5	2.8	1.6	1.00	3.7	0.6
P0155.025-020-A4	M 2,5	20	1.7	4.5	2.8	1.6	1.00	3.7	0.6
P0155.025-025-A4	M 2,5	25	1.7	4.5	2.8	1.6	1.00	3.7	0.6
P0155.025-030-A4	M 2,5	30	1.7	4.5	2.8	1.6	1.00	3.7	0.6
P0155.030-006-A4	M 3	6	2.0	5.5	3.5	2.0	1.30	4.5	0.8
P0155.030-008-A4	M 3	8	2.0	5.5	3.5	2.0	1.30	4.5	0.8
P0155.030-010-A4	M 3	10	2.0	5.5	3.5	2.0	1.30	4.5	0.8
P0155.030-011-A4	M 3	11	2.0	5.5	3.5	2.0	1.30	4.5	0.8
P0155.030-013-A4	M 3	13	2.0	5.5	3.5	2.0	1.30	4.5	0.8
P0155.030-016-A4	M 3	16	2.0	5.5	3.5	2.0	1.30	4.5	0.8
P0155.030-018-A4	M 3	18	2.0	5.5	3.5	2.0	1.30	4.5	0.8
P0155.030-020-A4	M 3	20	2.0	5.5	3.5	2.0	1.30	4.5	0.8
P0155.030-025-A4	M 3	25	2.0	5.5	3.5	2.0	1.30	4.5	0.8
P0155.030-030-A4	M 3	30	2.0	5.5	3.5	2.0	1.30	4.5	0.8
P0155.030-040-A4	M 3	40	2.0	5.5	3.5	2.0	1.30	4.5	0.8
P0155.035-010-A4	M3,5	10	2.3	6.0	3.8	2.4	1.4	5.2	1.0
P0155.035-016-A4	M3,5	16	2.3	6.0	3.8	2.4	1.4	5.2	1.0
P0155.035-020-A4	M3,5	20	2.3	6.0	3.8	2.4	1.4	5.2	1.0
P0155.035-025-A4	M3,5	25	2.3	6.0	3.8	2.4	1.4	5.2	1.0
P0155.035-030-A4	M3,5	30	2.3	6.0	3.8	2.4	1.4	5.2	1.0



Captive Screws - Cheese Head

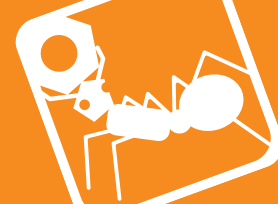
slot drive - 316 stainless



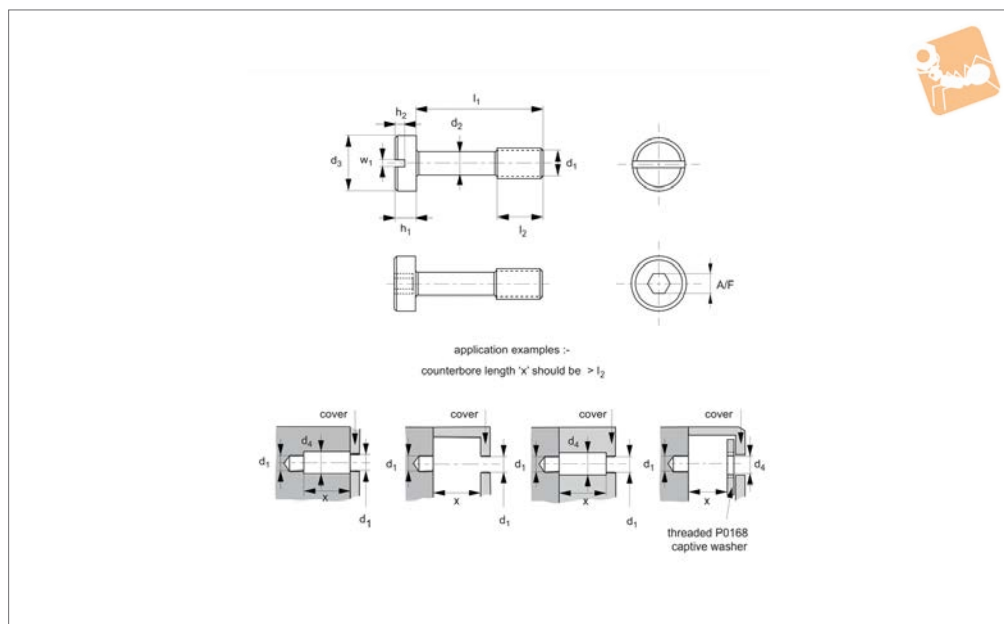
Captive Screws

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃	d ₄ min.	h ₁	h ₂	l ₂ ±0.25	w ₁
P0155.035-040-A4	M3,5	40	2.3	6.0	3.8	2.4	1.4	5.2	1.0
P0155.040-010-A4	M 4	10	2.8	7.0	4.5	2.6	1.6	6.0	1.2
P0155.040-012-A4	M 4	12	2.8	7.0	4.5	2.6	1.6	6.0	1.2
P0155.040-016-A4	M 4	16	2.8	7.0	4.5	2.6	1.6	6.0	1.2
P0155.040-018-A4	M 4	18	2.8	7.0	4.5	2.6	1.6	6.0	1.2
P0155.040-019-A4	M 4	19	2.8	7.0	4.5	2.6	1.6	6.0	1.2
P0155.040-020-A4	M 4	20	2.8	7.0	4.5	2.6	1.6	6.0	1.2
P0155.040-025-A4	M 4	25	2.8	7.0	4.5	2.6	1.6	6.0	1.2
P0155.040-030-A4	M 4	30	2.8	7.0	4.5	2.6	1.6	6.0	1.2
P0155.040-040-A4	M 4	40	2.8	7.0	4.5	2.6	1.6	6.0	1.2
P0155.040-050-A4	M 4	50	2.8	7.0	4.5	2.6	1.6	6.0	1.2
P0155.040-060-A4	M 4	60	2.8	7.0	4.5	2.6	1.6	6.0	1.2
P0155.050-010-A4	M 5	10	3.7	8.5	5.5	3.3	2.0	7.5	1.2
P0155.050-012-A4	M 5	12	3.7	8.5	5.5	3.3	2.0	7.5	1.2
P0155.050-016-A4	M 5	16	3.7	8.5	5.5	3.3	2.0	7.5	1.2
P0155.050-018-A4	M 5	18	3.7	8.5	5.5	3.3	2.0	7.5	1.2
P0155.050-020-A4	M 5	20	3.7	8.5	5.5	3.3	2.0	7.5	1.2
P0155.050-022-A4	M 5	22	3.7	8.5	5.5	3.3	2.0	7.5	1.2
P0155.050-025-A4	M 5	25	3.7	8.5	5.5	3.3	2.0	7.5	1.2
P0155.050-030-A4	M 5	30	3.7	8.5	5.5	3.3	2.0	7.5	1.2
P0155.050-040-A4	M 5	40	3.7	8.5	5.5	3.3	2.0	7.5	1.2
P0155.050-050-A4	M 5	50	3.7	8.5	5.5	3.3	2.0	7.5	1.2
P0155.050-060-A4	M 5	60	3.7	8.5	5.5	3.3	2.0	7.5	1.2
P0155.050-080-A4	M 5	80	3.7	8.5	5.5	3.3	2.0	7.5	1.2
P0155.060-010-A4	M 6	10	4.2	10.0	6.5	3.9	2.3	7.5	1.6
P0155.060-012-A4	M 6	12	4.2	10.0	6.5	3.9	2.3	7.5	1.6
P0155.060-016-A4	M 6	16	4.2	10.0	6.5	3.9	2.3	7.5	1.6
P0155.060-020-A4	M 6	20	4.2	10.0	6.5	3.9	2.3	7.5	1.6
P0155.060-025-A4	M 6	25	4.2	10.0	6.5	3.9	2.3	7.5	1.6
P0155.060-030-A4	M 6	30	4.2	10.0	6.5	3.9	2.3	7.5	1.6
P0155.060-040-A4	M 6	40	4.2	10.0	6.5	3.9	2.3	7.5	1.6
P0155.060-050-A4	M 6	50	4.2	10.0	6.5	3.9	2.3	7.5	1.6
P0155.060-060-A4	M 6	60	4.2	10.0	6.5	3.9	2.3	7.5	1.6
P0155.060-080-A4	M 6	80	4.2	10.0	6.5	3.9	2.3	7.5	1.6

CAPTIVE SCREWS



P0155.i.A2



Material

Stainless steel (AISI 303, 1.4305). Tensile strength 550 N/mm².

Also available on request in steel (anodised, black oxide or zinc plated), stainless steel (AISI 316, 1.440), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Direc-

tive 2006/42/EC. Generally to ISO 1207. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

Tips

Other head drive styles - add suffix:

-TX for Torx (hexalobular).

-PZ for Pozidrive.

-SE for snake-eye security.

All dimensions are in inches.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	Type	d ₁	l ₁	d ₂	d ₃	d ₄ min.	h ₁	l ₂	A/F
P0155.I04-07-SA2	Slotted	#4- 40	0.281	0.072	1/4	2.5	1/8	0.187	-
P0155.I04-08-SA2	Slotted	#4- 40	0.343	0.072	1/4	2.5	1/8	0.187	-
P0155.I06-07-SA2	Slotted	#6- 32	0.312	0.086	9/32	2.5	1/8	0.218	-
P0155.I06-09-SA2	Slotted	#6- 32	0.375	0.086	9/32	2.5	1/8	0.218	-
P0155.I06-11-SA2	Slotted	#6- 32	0.437	0.086	9/32	2.8	1/8	0.218	-
P0155.I08-10-SA2	Slotted	#8- 32	0.406	0.114	5/16	2.8	5/32	0.250	-
P0155.I08-12-SA2	Slotted	#8- 32	0.468	0.114	5/16	2.8	5/32	0.250	-
P0155.I08-13-SA2	Slotted	#8- 32	0.531	0.114	5/16	2.8	5/32	0.250	-
P0155.I10-13-SA2	Slotted	#10-32	0.531	0.136	3/8	2.8	3/16	0.312	-
P0155.I10-14-SA2	Slotted	#10-32	0.593	0.136	3/8	2.8	3/16	0.312	-
P0155.I04-07-HA2	Hex Socket	#4- 40	0.281	0.072	1/4	3.5	1/8	0.187	5/64
P0155.I04-08-HA2	Hex Socket	#4- 40	0.343	0.072	1/4	3.5	1/8	0.187	5/64
P0155.I06-07-HA2	Hex Socket	#6- 32	0.312	0.086	9/32	3.5	1/8	0.218	5/64
P0155.I06-09-HA2	Hex Socket	#6- 32	0.375	0.086	9/32	3.5	1/8	0.218	5/64
P0155.I06-11-HA2	Hex Socket	#6- 32	0.437	0.086	9/32	3.5	1/8	0.218	5/64
P0155.I08-10-HA2	Hex Socket	#8- 32	0.406	0.114	5/16	3.5	5/32	0.250	3/32
P0155.I08-12-HA2	Hex Socket	#8- 32	0.468	0.114	5/16	3.5	5/32	0.250	3/32
P0155.I08-13-HA2	Hex Socket	#8- 32	0.531	0.114	5/16	3.5	5/32	0.250	3/32
P0155.I10-13-HA2	Hex Socket	#10-32	0.531	0.136	3/8	3.5	3/16	0.312	1/8
P0155.I10-14-HA2	Hex Socket	#10-32	0.593	0.136	3/8	3.5	3/16	0.312	1/8

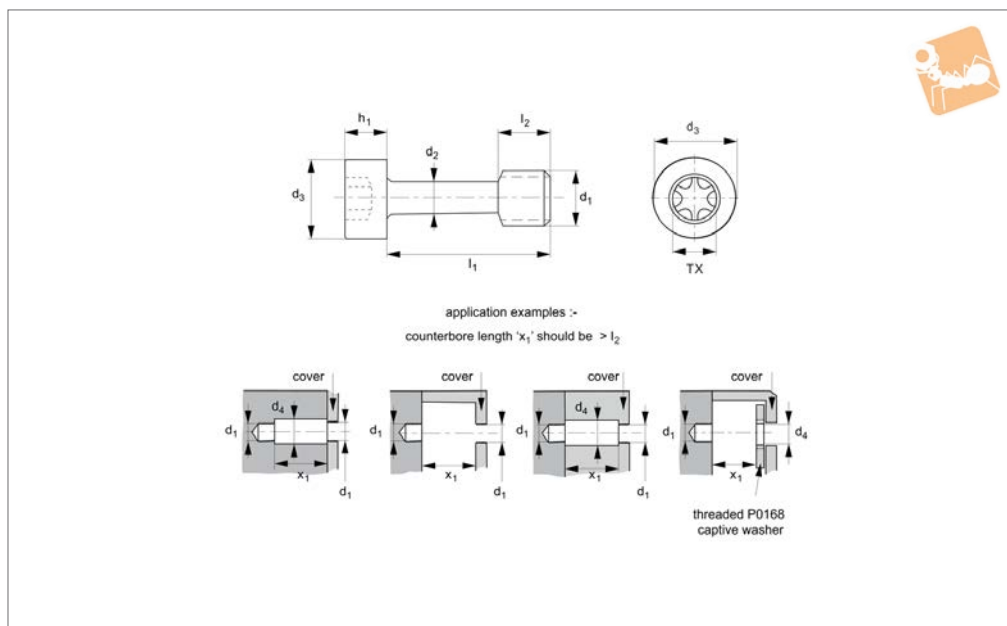


Captive Screws - Cap Head

TX drive - 303 stainless



Captive Screws



P0156.A2

CAPTIVE SCREWS

Material

Stainless steel (AISI 303, 1.4305). Tensile strength 550 N/mm². Proof stress min. 190 N/mm², austenitic stainless steel. Also available on request in steel (anodised, black oxide or zinc plated), stainless steel (AISI 316, 1.440), brass, aluminium etc.

tive 2006/42/EC. Generally to ISO 4762. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

*M 8 sizes have a reduced TX size.

reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

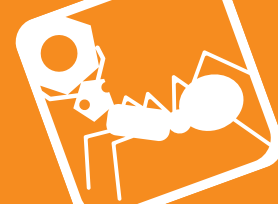
Technical Notes

Used to comply with the Machinery Direc-

Important Notes

Please note that these screws have a

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ max.	d ₄ min.	h ₁ max.	l ₂ ±0.25	TX size
P0156.030-008-A2	M 3	8	2.0	5.5	3.5	3	4.5	TX-10
P0156.030-010-A2	M 3	10	2.0	5.5	3.5	3	4.5	TX-10
P0156.030-016-A2	M 3	16	2.0	5.5	3.5	3	4.5	TX-10
P0156.030-020-A2	M 3	20	2.0	5.5	3.5	3	4.5	TX-10
P0156.030-025-A2	M 3	25	2.0	5.5	3.5	3	4.5	TX-10
P0156.030-030-A2	M 3	30	2.0	5.5	3.5	3	4.5	TX-10
P0156.040-008-A2	M 4	8	2.8	7.0	4.5	4	6.0	TX-20
P0156.040-010-A2	M 4	10	2.8	7.0	4.5	4	6.0	TX-20
P0156.040-012-A2	M 4	12	2.8	7.0	4.5	4	6.0	TX-20
P0156.040-016-A2	M 4	16	2.8	7.0	4.5	4	6.0	TX-20
P0156.040-020-A2	M 4	20	2.8	7.0	4.5	4	6.0	TX-20
P0156.040-025-A2	M 4	25	2.8	7.0	4.5	4	6.0	TX-20
P0156.040-030-A2	M 4	30	2.8	7.0	4.5	4	6.0	TX-20
P0156.040-040-A2	M 4	40	2.8	7.0	4.5	4	6.0	TX-20
P0156.040-050-A2	M 4	50	2.8	7.0	4.5	4	6.0	TX-20
P0156.050-010-A2	M 5	10	3.7	8.5	5.5	5	7.5	TX-25
P0156.050-012-A2	M 5	12	3.7	8.5	5.5	5	7.5	TX-25
P0156.050-016-A2	M 5	16	3.7	8.5	5.5	5	7.5	TX-25
P0156.050-020-A2	M 5	20	3.7	8.5	5.5	5	7.5	TX-25
P0156.050-025-A2	M 5	25	3.7	8.5	5.5	5	7.5	TX-25
P0156.050-030-A2	M 5	30	3.7	8.5	5.5	5	7.5	TX-25
P0156.050-040-A2	M 5	40	3.7	8.5	5.5	5	7.5	TX-25
P0156.050-050-A2	M 5	50	3.7	8.5	5.5	5	7.5	TX-25
P0156.060-010-A2	M 6	10	4.2	10.0	6.5	6	7.5	TX-30
P0156.060-012-A2	M 6	12	4.2	10.0	6.5	6	7.5	TX-30
P0156.060-016-A2	M 6	16	4.2	10.0	6.5	6	7.5	TX-30



Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ max.	d ₄ min.	h ₁ max.	l ₂ ±0.25	TX size
P0156.060-020-A2	M 6	20	4.2	10.0	6.5	6	7.5	TX-30
P0156.060-025-A2	M 6	25	4.2	10.0	6.5	6	7.5	TX-30
P0156.060-030-A2	M 6	30	4.2	10.0	6.5	6	7.5	TX-30
P0156.060-040-A2	M 6	40	4.2	10.0	6.5	6	7.5	TX-30
P0156.060-050-A2	M 6	50	4.2	10.0	6.5	6	7.5	TX-30
P0156.060-060-A2	M 6	60	4.2	10.0	6.5	6	7.5	TX-30
P0156.060-080-A2	M 6	80	4.2	10.0	6.5	6	7.5	TX-30
P0156.080-012-A2	M 8	12	6.0	13.0	8.5	8	10.0	TX-30*
P0156.080-016-A2	M 8	16	6.0	13.0	8.5	8	10.0	TX-30*
P0156.080-020-A2	M 8	20	6.0	13.0	8.5	8	10.0	TX-30*
P0156.080-025-A2	M 8	25	6.0	13.0	8.5	8	10.0	TX-30*
P0156.080-030-A2	M 8	30	6.0	13.0	8.5	8	10.0	TX-30*
P0156.080-035-A2	M 8	35	6.0	13.0	8.5	8	10.0	TX-30*
P0156.080-040-A2	M 8	40	6.0	13.0	8.5	8	10.0	TX-30*
P0156.080-045-A2	M 8	45	6.0	13.0	8.5	8	10.0	TX-30*
P0156.080-050-A2	M 8	50	6.0	13.0	8.5	8	10.0	TX-30*
P0156.080-060-A2	M 8	60	6.0	13.0	8.5	8	10.0	TX-30*
P0156.080-080-A2	M 8	80	6.0	13.0	8.5	8	10.0	TX-30*

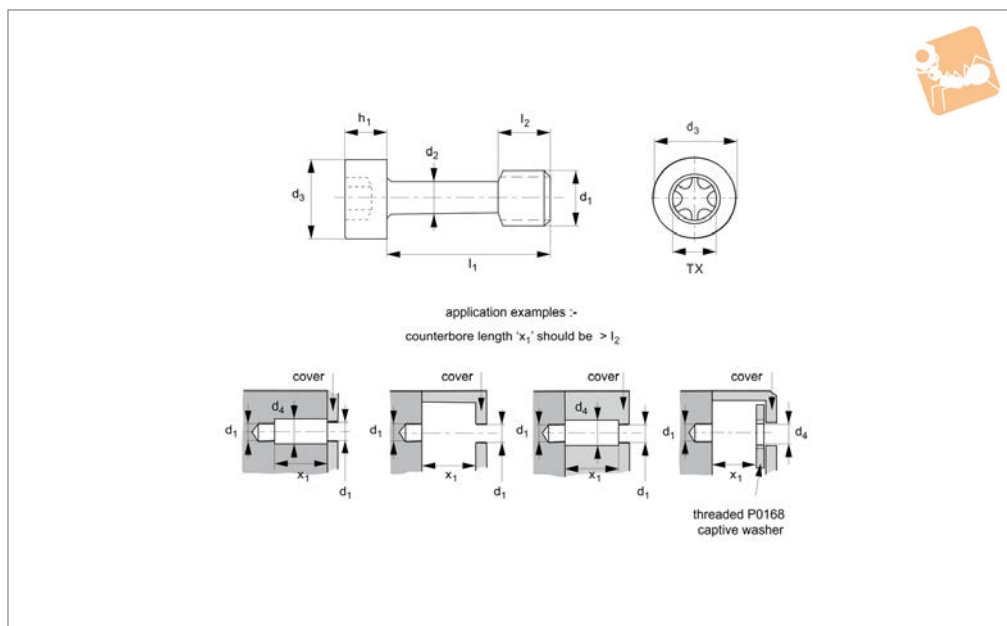


Captive Screws - Cap Head

TX drive - 316 stainless



Captive Screws



P0156.A4

CAPTIVE SCREWS

Material

Stainless steel (AISI 316, 1.440).
Tensile strength 480 N/mm². Proof stress min. 200 N/mm², austenitic stainless steel.
Also available on request in steel (anodised, black oxide or zinc plated), stainless steel (AISI 303, 1.4305), brass, aluminium etc.

tive 2006/42/EC. Generally to ISO 4762.
Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

*M 8 sizes have a reduced TX size.

reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

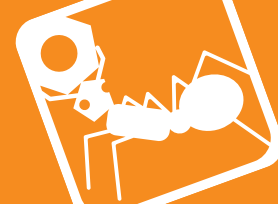
Technical Notes

Used to comply with the Machinery Direc-

Important Notes

Please note that these screws have a

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ max.	d ₄ min.	h ₁ max.	l ₂ ±0.25	TX size
P0156.030-008-A4	M 3	8	2.0	5.5	3.5	3	4.5	TX-10
P0156.030-010-A4	M 3	10	2.0	5.5	3.5	3	4.5	TX-10
P0156.030-016-A4	M 3	16	2.0	5.5	3.5	3	4.5	TX-10
P0156.030-020-A4	M 3	20	2.0	5.5	3.5	3	4.5	TX-10
P0156.030-025-A4	M 3	25	2.0	5.5	3.5	3	4.5	TX-10
P0156.030-030-A4	M 3	30	2.0	5.5	3.5	3	4.5	TX-10
P0156.040-008-A4	M 4	8	2.8	7.0	4.5	4	6.0	TX-20
P0156.040-010-A4	M 4	10	2.8	7.0	4.5	4	6.0	TX-20
P0156.040-012-A4	M 4	12	2.8	7.0	4.5	4	6.0	TX-20
P0156.040-016-A4	M 4	16	2.8	7.0	4.5	4	6.0	TX-20
P0156.040-020-A4	M 4	20	2.8	7.0	4.5	4	6.0	TX-20
P0156.040-025-A4	M 4	25	2.8	7.0	4.5	4	6.0	TX-20
P0156.040-030-A4	M 4	30	2.8	7.0	4.5	4	6.0	TX-20
P0156.040-040-A4	M 4	40	2.8	7.0	4.5	4	6.0	TX-20
P0156.040-050-A4	M 4	50	2.8	7.0	4.5	4	6.0	TX-20
P0156.050-010-A4	M 5	10	3.7	8.5	5.5	5	7.5	TX-25
P0156.050-012-A4	M 5	12	3.7	8.5	5.5	5	7.5	TX-25
P0156.050-016-A4	M 5	16	3.7	8.5	5.5	5	7.5	TX-25
P0156.050-020-A4	M 5	20	3.7	8.5	5.5	5	7.5	TX-25
P0156.050-025-A4	M 5	25	3.7	8.5	5.5	5	7.5	TX-25
P0156.050-030-A4	M 5	30	3.7	8.5	5.5	5	7.5	TX-25
P0156.050-040-A4	M 5	40	3.7	8.5	5.5	5	7.5	TX-25
P0156.050-050-A4	M 5	50	3.7	8.5	5.5	5	7.5	TX-25
P0156.060-010-A4	M 6	10	4.2	10.0	6.5	6	7.5	TX-30
P0156.060-012-A4	M 6	12	4.2	10.0	6.5	6	7.5	TX-30
P0156.060-016-A4	M 6	16	4.2	10.0	6.5	6	7.5	TX-30



Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ max.	d ₄ min.	h ₁ max.	l ₂ ±0.25	TX size
P0156.060-020-A4	M 6	20	4.2	10.0	6.5	6	7.5	TX-30
P0156.060-025-A4	M 6	25	4.2	10.0	6.5	6	7.5	TX-30
P0156.060-030-A4	M 6	30	4.2	10.0	6.5	6	7.5	TX-30
P0156.060-040-A4	M 6	40	4.2	10.0	6.5	6	7.5	TX-30
P0156.060-050-A4	M 6	50	4.2	10.0	6.5	6	7.5	TX-30
P0156.060-060-A4	M 6	60	4.2	10.0	6.5	6	7.5	TX-30
P0156.060-080-A4	M 6	80	4.2	10.0	6.5	6	7.5	TX-30
P0156.080-012-A4	M 8	12	6.0	13.0	8.5	8	10.0	TX-30*
P0156.080-016-A4	M 8	16	6.0	13.0	8.5	8	10.0	TX-30*
P0156.080-020-A4	M 8	20	6.0	13.0	8.5	8	10.0	TX-30*
P0156.080-025-A4	M 8	25	6.0	13.0	8.5	8	10.0	TX-30*
P0156.080-030-A4	M 8	30	6.0	13.0	8.5	8	10.0	TX-30*
P0156.080-035-A4	M 8	35	6.0	13.0	8.5	8	10.0	TX-30*
P0156.080-040-A4	M 8	40	6.0	13.0	8.5	8	10.0	TX-30*
P0156.080-045-A4	M 8	45	6.0	13.0	8.5	8	10.0	TX-30*
P0156.080-050-A4	M 8	50	6.0	13.0	8.5	8	10.0	TX-30*
P0156.080-060-A4	M 8	60	6.0	13.0	8.5	8	10.0	TX-30*
P0156.080-080-A4	M 8	80	6.0	13.0	8.5	8	10.0	TX-30*

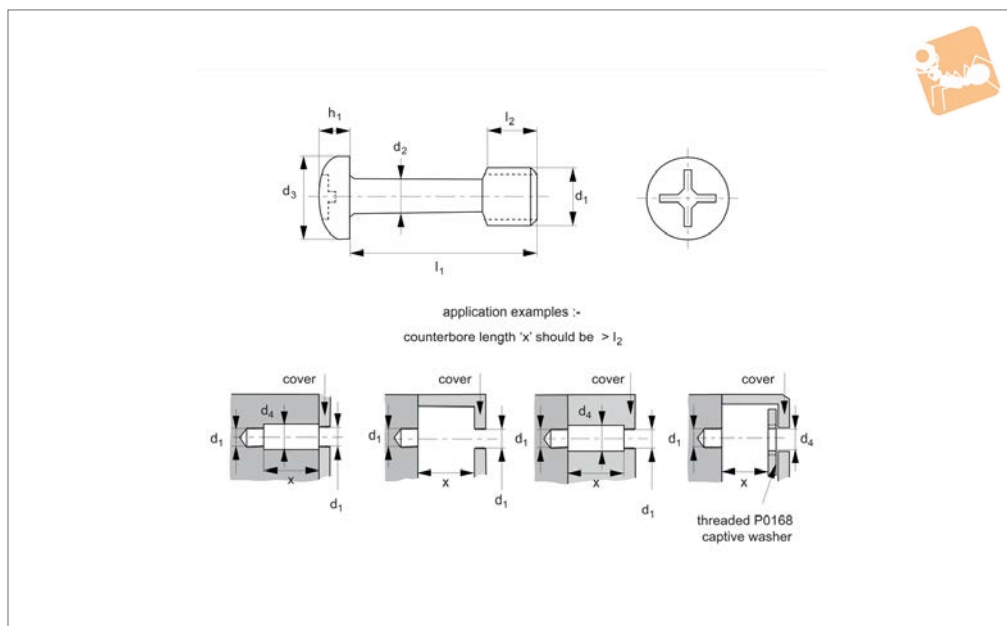


Captive Screws - Pan Head

phillips drive, 303 stainless



Captive Screws



P0157.A2

CAPTIVE SCREWS

Material

Stainless steel (AISI 303, 1.4305). Tensile strength 550 N/mm². Proof stress min. 190 N/mm², austenitic stainless steel. Also available on request in steel (anodised, black oxide or zinc plated), stainless steel (AISI 316, 1.440), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Direc-

tive 2006/42/EC. Generally to ISO 14583. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

Tips

Other head drive styles - add suffix:
-TX for Torx (hexalobular).

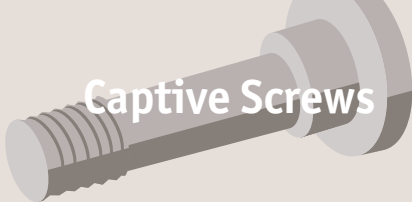
-PZ for Pozidrive.

-SE for snake-eye security.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d_1 .

Order No.	d_1	l_1 ± 0.25	d_2 ± 0.12	d_3 max.	d_4 max.	h_1 max.	l_2 ± 0.25	Drive #
P0157.025-008-A2	M 2,5	8	1.7	5.0	3.5	2.1	3.7	1
P0157.025-010-A2	M 2,5	10	1.7	5.0	3.5	2.1	3.7	1
P0157.025-012-A2	M 2,5	12	1.7	5.0	3.5	2.1	3.7	1
P0157.025-016-A2	M 2,5	16	1.7	5.0	3.5	2.1	3.7	1
P0157.025-020-A2	M 2,5	20	1.7	5.0	3.5	2.1	3.7	1
P0157.030-010-A2	M 3	10	2.0	5.6	4.5	2.4	4.5	1
P0157.030-016-A2	M 3	16	2.0	5.6	4.5	2.4	4.5	1
P0157.030-020-A2	M 3	20	2.0	5.6	4.5	2.4	4.5	1
P0157.030-025-A2	M 3	25	2.0	5.6	4.5	2.4	4.5	1
P0157.030-030-A2	M 3	30	2.0	5.6	4.5	2.4	4.5	1
P0157.030-040-A2	M 3	40	2.0	5.6	4.5	2.4	4.5	1
P0157.040-010-A2	M 4	10	2.8	8.0	5.5	3.1	6.0	2
P0157.040-012-A2	M 4	12	2.8	8.0	5.5	3.1	6.0	2
P0157.040-016-A2	M 4	16	2.8	8.0	5.5	3.1	6.0	2
P0157.040-020-A2	M 4	20	2.8	8.0	5.5	3.1	6.0	2
P0157.040-025-A2	M 4	25	2.8	8.0	5.5	3.1	6.0	2
P0157.040-030-A2	M 4	30	2.8	8.0	5.5	3.1	6.0	2
P0157.040-040-A2	M 4	40	2.8	8.0	5.5	3.1	6.0	2
P0157.040-050-A2	M 4	50	2.8	8.0	5.5	3.1	6.0	2
P0157.040-060-A2	M 4	60	2.8	8.0	5.5	3.1	6.0	2
P0157.050-010-A2	M 5	10	3.7	9.5	6.5	3.7	7.5	2
P0157.050-012-A2	M 5	12	3.7	9.5	6.5	3.7	7.5	2
P0157.050-016-A2	M 5	16	3.7	9.5	6.5	3.7	7.5	2
P0157.050-020-A2	M 5	20	3.7	9.5	6.5	3.7	7.5	2
P0157.050-025-A2	M 5	25	3.7	9.5	6.5	3.7	7.5	2
P0157.050-030-A2	M 5	30	3.7	9.5	6.5	3.7	7.5	2



Captive Screws

Captive Screws - Pan Head phillips drive, 303 stainless



CAPTIVE SCREWS

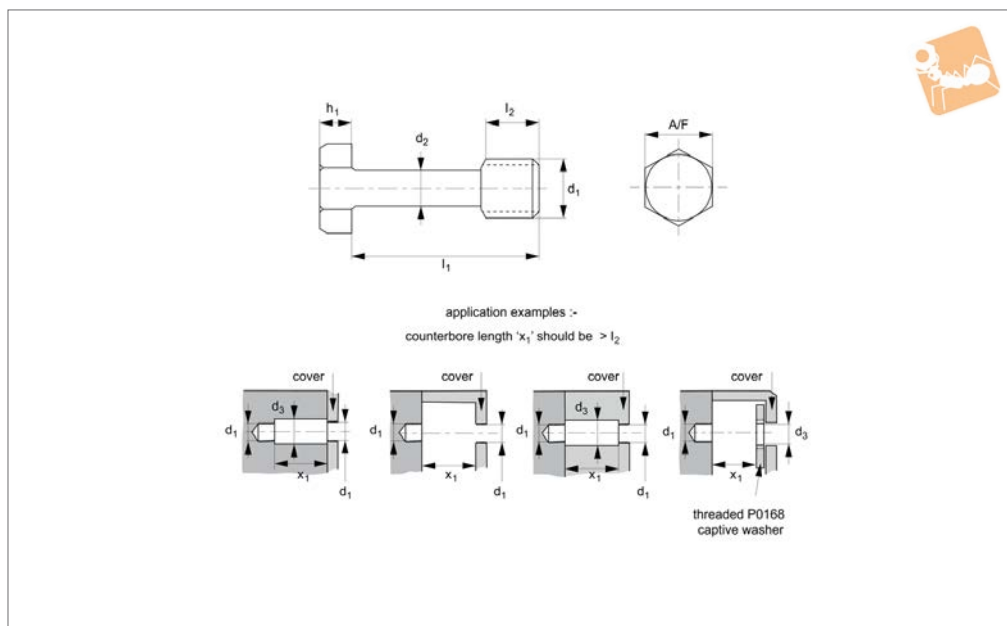
Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ max.	d ₄ max.	h ₁ max.	l ₂ ±0.25	Drive #
P0157.050-040-A2	M 5	40	3.7	9.5	6.5	3.7	7.5	2
P0157.050-050-A2	M 5	50	3.7	9.5	6.5	3.7	7.5	2
P0157.050-060-A2	M 5	60	3.7	9.5	6.5	3.7	7.5	2
P0157.060-012-A2	M 6	12	4.2	12.0	8.5	4.7	7.5	3
P0157.060-016-A2	M 6	16	4.2	12.0	8.5	4.7	7.5	3
P0157.060-020-A2	M 6	20	4.2	12.0	8.5	4.7	7.5	3
P0157.060-025-A2	M 6	25	4.2	12.0	8.5	4.7	7.5	3
P0157.060-030-A2	M 6	30	4.2	12.0	8.5	4.7	7.5	3
P0157.060-040-A2	M 6	40	4.2	12.0	8.5	4.7	7.5	3
P0157.060-050-A2	M 6	50	4.2	12.0	8.5	4.7	7.5	3
P0157.060-060-A2	M 6	60	4.2	12.0	8.5	4.7	7.5	3
P0157.060-080-A2	M 6	80	4.2	12.0	8.5	4.7	7.5	3



Captive Screws - Hex Bolts

303 stainless

Captive Screws



P0158.A2

CAPTIVE SCREWS

Material

Stainless steel (AISI 303, 1.4305). Tensile strength 550 N/mm². Proof stress min. 190 N/mm², austenitic stainless steel. Also available on request in steel (anodised, black oxide or zinc plated), stainless steel (AISI 316, 1.440), brass, aluminium etc.

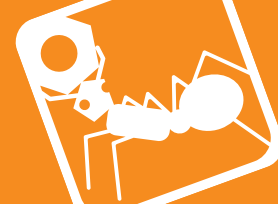
Technical Notes

Used to comply with the Machinery Directive 2006/42/EC. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ min.	h ₁ max.	l ₂ ±0.25	A/F
P0158.030-010-A2	M 3	10	2.0	3.5	2.2	4.5	6
P0158.030-016-A2	M 3	16	2.0	3.5	2.2	4.5	6
P0158.030-020-A2	M 3	20	2.0	3.5	2.2	4.5	6
P0158.030-025-A2	M 3	25	2.0	3.5	2.2	4.5	6
P0158.030-030-A2	M 3	30	2.0	3.5	2.2	4.5	6
P0158.030-040-A2	M 3	40	2.0	3.5	2.2	4.5	6
P0158.040-012-A2	M 4	12	2.8	4.5	2.9	6.0	7
P0158.040-016-A2	M 4	16	2.8	4.5	2.9	6.0	7
P0158.040-020-A2	M 4	20	2.8	4.5	2.9	6.0	7
P0158.040-025-A2	M 4	25	2.8	4.5	2.9	6.0	7
P0158.040-030-A2	M 4	30	2.8	4.5	2.9	8.0	7
P0158.040-035-A2	M 4	35	2.8	4.5	2.9	8.0	7
P0158.040-040-A2	M 4	40	2.8	4.5	2.9	8.0	7
P0158.040-050-A2	M 4	50	2.8	4.5	2.9	8.0	7
P0158.040-060-A2	M 4	60	2.8	4.5	2.9	8.0	7
P0158.050-012-A2	M 5	12	3.7	5.5	3.6	7.5	8
P0158.050-016-A2	M 5	16	3.7	5.5	3.6	7.5	8
P0158.050-020-A2	M 5	20	3.7	5.5	3.6	7.5	8
P0158.050-025-A2	M 5	25	3.7	5.5	3.6	7.5	8
P0158.050-030-A2	M 5	30	3.7	5.5	3.6	10.0	8
P0158.050-035-A2	M 5	35	3.7	5.5	3.6	10.0	8
P0158.050-040-A2	M 5	40	3.7	5.5	3.6	10.0	8
P0158.050-050-A2	M 5	50	3.7	5.5	3.6	10.0	8
P0158.050-060-A2	M 5	60	3.7	5.5	3.6	10.0	8
P0158.060-012-A2	M 6	12	4.2	6.5	4.1	7.5	10
P0158.060-016-A2	M 6	16	4.2	6.5	4.1	7.5	10
P0158.060-020-A2	M 6	20	4.2	6.5	4.1	7.5	10
P0158.060-025-A2	M 6	25	4.2	6.5	4.1	7.5	10
P0158.060-030-A2	M 6	30	4.2	6.5	4.1	7.5	10



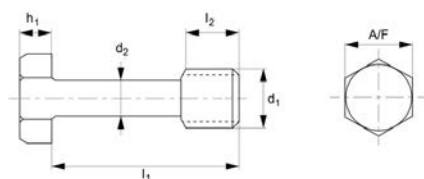
Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ min.	h ₁ max.	l ₂ ±0.25	A/F
P0158.060-035-A2	M 6	35	4.2	6.5	4.1	7.5	10
P0158.060-040-A2	M 6	40	4.2	6.5	4.1	7.5	10
P0158.060-050-A2	M 6	50	4.2	6.5	4.1	7.5	10
P0158.060-060-A2	M 6	60	4.2	6.5	4.1	7.5	10
P0158.060-080-A2	M 6	80	4.2	6.5	4.1	7.5	10
P0158.080-016-A2	M 8	16	6.0	8.5	5.3	10.0	13
P0158.080-020-A2	M 8	20	6.0	8.5	5.3	10.0	13
P0158.080-025-A2	M 8	25	6.0	8.5	5.3	10.0	13
P0158.080-030-A2	M 8	30	6.0	8.5	5.3	10.0	13
P0158.080-035-A2	M 8	35	6.0	8.5	5.3	10.0	13
P0158.080-040-A2	M 8	40	6.0	8.5	5.3	10.0	13
P0158.080-050-A2	M 8	50	6.0	8.5	5.3	10.0	13
P0158.080-060-A2	M 8	60	6.0	8.5	5.3	10.0	13
P0158.080-080-A2	M 8	80	6.0	8.5	5.3	10.0	13
P0158.100-020-A2	M10	20	7.5	10.6	6.4	12.5	17
P0158.100-025-A2	M10	25	7.5	10.6	6.4	12.5	17
P0158.100-030-A2	M10	30	7.5	10.6	6.4	12.5	17
P0158.100-035-A2	M10	35	7.5	10.6	6.4	12.0	17
P0158.100-040-A2	M10	40	7.5	10.6	6.4	12.5	17
P0158.100-050-A2	M10	50	7.5	10.6	6.4	12.5	17
P0158.100-060-A2	M10	60	7.5	10.6	6.4	12.5	17
P0158.100-080-A2	M10	80	7.5	10.6	6.4	12.5	17
P0158.120-025-A2	M12	25	8.0	13.2	7.5	15.0	19
P0158.120-030-A2	M12	30	8.0	13.2	7.5	15.0	19
P0158.120-035-A2	M12	35	8.0	13.2	7.5	15.0	19
P0158.120-040-A2	M12	40	8.0	13.2	7.5	15.0	19
P0158.120-050-A2	M12	50	8.0	13.2	7.5	15.0	19
P0158.120-060-A2	M12	60	8.0	13.2	7.5	15.0	19
P0158.120-080-A2	M12	80	8.0	13.2	7.5	15.0	19



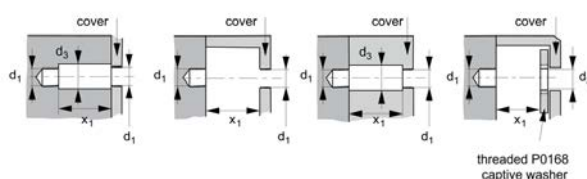
Captive Screws - Hex Bolts

316 stainless

Captive Screws



application examples :-
counterbore length 'x₁' should be > l₂



P0158.A4

MADE IN BRITAIN

CAPTIVE SCREWS

Material

Stainless steel (AISI 316, 1.440).
Tensile strength 480 N/mm². Proof stress min. 200 N/mm², austenitic stainless steel.
Also available on request in steel (anodised, black oxide or zinc plated), stainless steel (AISI 303, 1.4305), brass, aluminium etc.

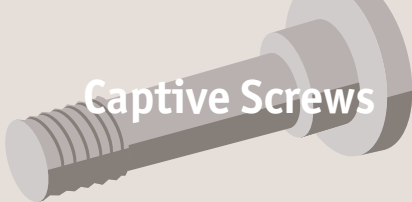
Technical Notes

Used to comply with the Machinery Directive 2006/42/EC. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ min.	h ₁ max.	l ₂ ±0.25	A/F
P0158.030-010-A4	M 3	10	2.0	3.5	2.2	4.5	6
P0158.030-016-A4	M 3	16	2.0	3.5	2.2	4.5	6
P0158.030-020-A4	M 3	20	2.0	3.5	2.2	4.5	6
P0158.030-025-A4	M 3	25	2.0	3.5	2.2	4.5	6
P0158.030-030-A4	M 3	30	2.0	3.5	2.2	4.5	6
P0158.030-040-A4	M 3	40	2.0	3.5	2.2	4.5	6
P0158.040-012-A4	M 4	12	2.8	4.5	2.9	6.0	7
P0158.040-016-A4	M 4	16	2.8	4.5	2.9	6.0	7
P0158.040-020-A4	M 4	20	2.8	4.5	2.9	6.0	7
P0158.040-030-A4	M 4	30	2.8	4.5	2.9	8.0	7
P0158.040-040-A4	M 4	40	2.8	4.5	2.9	8.0	7
P0158.040-050-A4	M 4	50	2.8	4.5	2.9	8.0	7
P0158.040-060-A4	M 4	60	2.8	4.5	2.9	8.0	7
P0158.050-012-A4	M 5	12	3.7	5.5	3.6	7.5	8
P0158.050-016-A4	M 5	16	3.7	5.5	3.6	7.5	8
P0158.050-020-A4	M 5	20	3.7	5.5	3.6	7.5	8
P0158.050-030-A4	M 5	30	3.7	5.5	3.6	10.0	8
P0158.050-040-A4	M 5	40	3.7	5.5	3.6	10.0	8
P0158.050-050-A4	M 5	50	3.7	5.5	3.6	10.0	8
P0158.050-060-A4	M 5	60	3.7	5.5	3.6	10.0	8
P0158.060-012-A4	M 6	12	4.2	6.5	4.1	7.5	10
P0158.060-016-A4	M 6	16	4.2	6.5	4.1	7.5	10
P0158.060-020-A4	M 6	20	4.2	6.5	4.1	7.5	10
P0158.060-030-A4	M 6	30	4.2	6.5	4.1	7.5	10
P0158.060-040-A4	M 6	40	4.2	6.5	4.1	7.5	10
P0158.060-050-A4	M 6	50	4.2	6.5	4.1	7.5	10
P0158.060-060-A4	M 6	60	4.2	6.5	4.1	7.5	10
P0158.060-080-A4	M 6	80	4.2	6.5	4.1	7.5	10
P0158.080-016-A4	M 8	16	6.0	8.5	5.3	10.0	13



Captive Screws

Captive Screws - Hex Bolts

316 stainless



CAPTIVE SCREWS

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ min.	h ₁ max.	l ₂ ±0.25	A/F
P0158.080-020-A4	M 8	20	6.0	8.5	5.3	10.0	13
P0158.080-025-A4	M 8	25	6.0	8.5	5.3	10.0	13
P0158.080-030-A4	M 8	30	6.0	8.5	5.3	10.0	13
P0158.080-035-A4	M 8	35	6.0	8.5	5.3	10.0	13
P0158.080-040-A4	M 8	40	6.0	8.5	5.3	10.0	13
P0158.080-050-A4	M 8	50	6.0	8.5	5.3	10.0	13
P0158.080-060-A4	M 8	60	6.0	8.5	5.3	10.0	13
P0158.080-080-A4	M 8	80	6.0	8.5	5.3	10.0	13
P0158.100-020-A4	M10	20	7.5	10.6	6.4	12.5	17
P0158.100-025-A4	M10	25	7.5	10.6	6.4	12.5	17
P0158.100-030-A4	M10	30	7.5	10.6	6.4	12.5	17
P0158.100-035-A4	M10	35	7.5	10.6	6.4	12.0	17
P0158.100-040-A4	M10	40	7.5	10.6	6.4	12.5	17
P0158.100-050-A4	M10	50	7.5	10.6	6.4	12.5	17
P0158.100-060-A4	M10	60	7.5	10.6	6.4	12.5	17
P0158.100-080-A4	M10	80	7.5	10.6	6.4	12.5	17
P0158.120-025-A4	M12	25	8.0	13.2	7.5	15.0	19
P0158.120-030-A4	M12	30	8.0	13.2	7.5	15.0	19
P0158.120-035-A4	M12	35	8.0	13.2	7.5	15.0	19
P0158.120-040-A4	M12	40	8.0	13.2	7.5	15.0	19
P0158.120-050-A4	M12	50	8.0	13.2	7.5	15.0	19
P0158.120-060-A4	M12	60	8.0	13.2	7.5	15.0	19
P0158.120-080-A4	M12	80	8.0	13.2	7.5	15.0	19

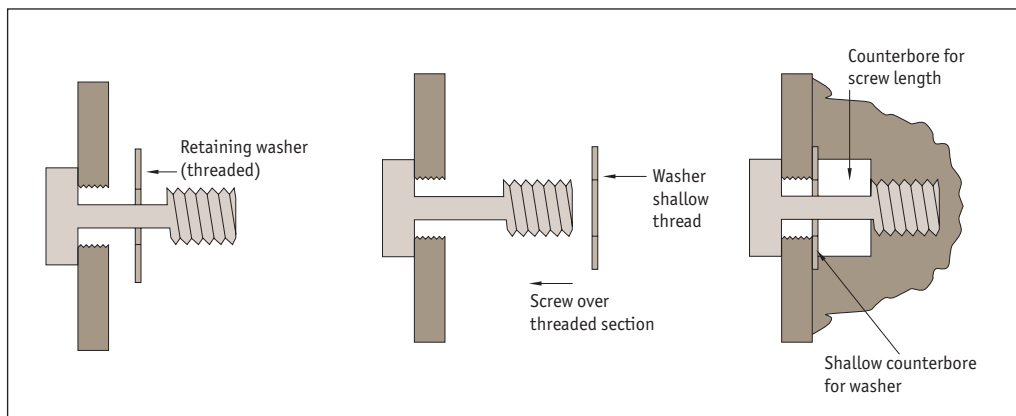
Other options to retain screws to panels are either our retaining washers or our retaining flanges.

Retaining washers

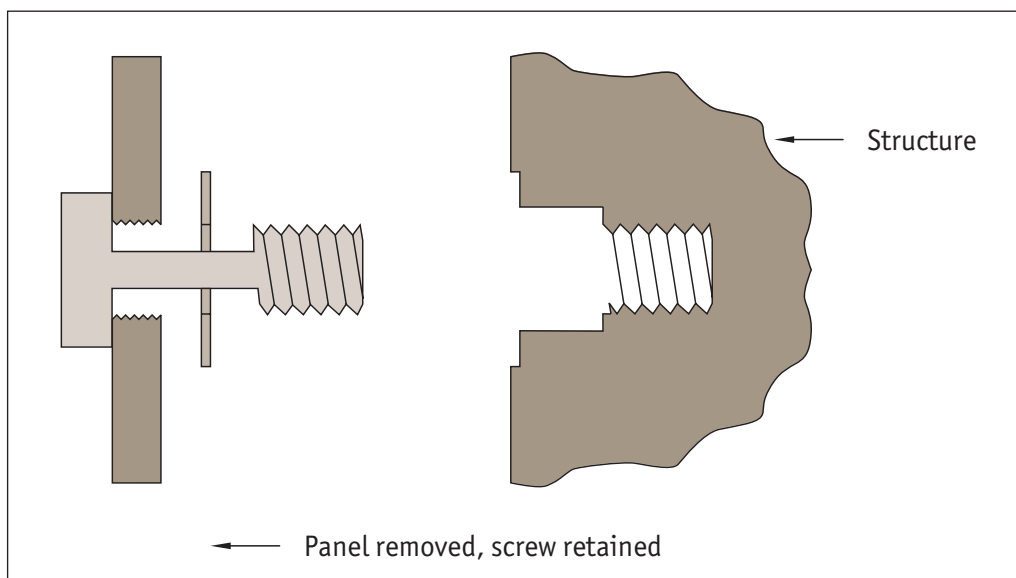
These are simple but effective when used with our captive screws. The captive screws have a normal thread then a reduced diameter for the rest of the screw length.

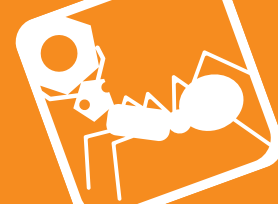
The washer has a small length of thread on the internal diameter and once screwed on to the captive screw is effectively captive.

Example

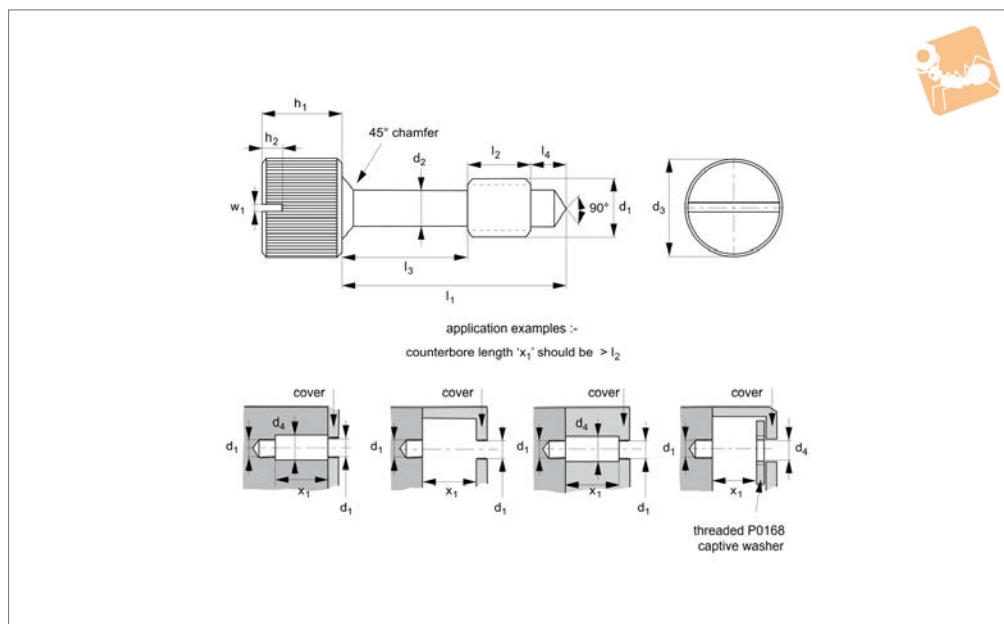


Screw the thin retaining washer onto the captive screw and the screw is therefore retained to the panel.





P0159.A2



Material

Stainless steel (AISI 303, 1.4305). Tensile strength 550 N/mm². Proof stress min. 190 N/mm², austenitic stainless steel. Also available on request in steel (anodised, black oxide or zinc plated),

stainless steel (AISI 316, 1.440), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Directive 2006/42/EC. Often used with our

captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃	d ₄ min.	h ₁	h ₂	l ₂ ±0.25	l ₃	l ₄	w ₁
P0159.030-010-A2	M 3	10	2	6.5	3.5	6.5	2.0	3.2	4.8	2.0	1.2
P0159.030-014-A2	M 3	14	2	6.5	3.5	6.5	2.0	3.2	8.8	2.0	1.2
P0159.030-016-A2	M 3	16	2	6.5	3.5	6.5	2.0	3.2	10.8	2.0	1.2
P0159.030-020-A2	M 3	20	2	6.5	3.5	6.5	2.0	3.2	14.8	2.0	1.2
P0159.030-022-A2	M 3	22	2	6.5	3.5	6.5	2.0	3.2	16.8	2.0	1.2
P0159.030-024-A2	M 3	24	2	6.5	3.5	6.5	2.0	3.2	18.8	2.0	1.2
P0159.030-026-A2	M 3	26	2	6.5	3.5	6.5	2.0	3.2	20.8	2.0	1.2
P0159.031-010-A2	M 3	10	2	8	3.5	8.0	2.0	3.2	4.8	2.0	1.2
P0159.031-014-A2	M 3	14	2	8	3.5	8.0	2.0	3.2	8.8	2.0	1.2
P0159.031-016-A2	M 3	16	2	8	3.5	8.0	2.0	3.2	10.8	2.0	1.2
P0159.031-020-A2	M 3	20	2	8	3.5	8.0	2.0	3.2	14.8	2.0	1.2
P0159.031-022-A2	M 3	22	2	8	3.5	8.0	2.0	3.2	16.8	2.0	1.2
P0159.031-024-A2	M 3	24	2	8	3.5	8.0	2.0	3.2	18.8	2.0	1.2
P0159.040-010-A2	M 4	10	3	8	4.5	8.0	2.0	5.5	2.0	2.5	1.2
P0159.040-014-A2	M 4	14	3	8	4.5	8.0	2.0	5.5	6.0	2.5	1.2
P0159.040-016-A2	M 4	16	3	8	4.5	8.0	2.0	5.5	8.0	2.5	1.2
P0159.040-020-A2	M 4	20	3	8	4.5	8.0	2.0	5.5	12.0	2.5	1.2
P0159.040-022-A2	M 4	22	3	8	4.5	8.0	2.0	5.5	14.0	2.5	1.2
P0159.040-024-A2	M 4	24	3	8	4.5	8.0	2.0	5.5	16.0	2.5	1.2
P0159.040-027-A2	M 4	27	3	8	4.5	8.0	2.0	5.5	19.0	2.5	1.2
P0159.040-032-A2	M 4	32	3	8	4.5	8.0	2.0	5.5	24.0	2.5	1.2
P0159.050-014-A2	M 5	14	3.5	10	5.5	10.0	2.5	6.5	3.5	4.0	1.5
P0159.050-016-A2	M 5	16	3.5	10	5.5	10.0	2.5	6.5	5.5	4.0	1.5
P0159.050-020-A2	M 5	20	3.5	10	5.5	10.0	2.5	6.5	9.5	4.0	1.5
P0159.050-022-A2	M 5	22	3.5	10	5.5	10.0	2.5	6.5	11.5	4.0	1.5
P0159.050-024-A2	M 5	24	3.5	10	5.5	10.0	2.5	6.5	13.5	4.0	1.5
P0159.050-027-A2	M 5	27	3.5	10	5.5	10.0	2.5	6.5	16.5	4.0	1.5
P0159.050-032-A2	M 5	32	3.5	10	5.5	10.0	2.5	6.5	21.5	4.0	1.5
P0159.050-035-A2	M 5	35	3.5	10	5.5	10.0	2.5	6.5	24.5	4.0	1.5
P0159.050-040-A2	M 5	40	3.5	10	5.5	10.0	2.5	6.5	29.5	4.0	1.5
P0159.060-016-A2	M 6	16	4.5	12	6.5	15.0	2.5	8.0	3.0	5.0	2.0
P0159.060-020-A2	M 6	20	4.5	12	6.5	15.0	2.5	8.0	7.0	5.0	2.0



Captive Panel Thumb Screws

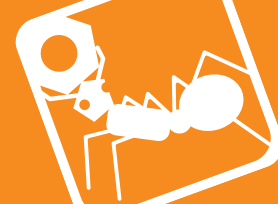
slot drive - 303 stainless



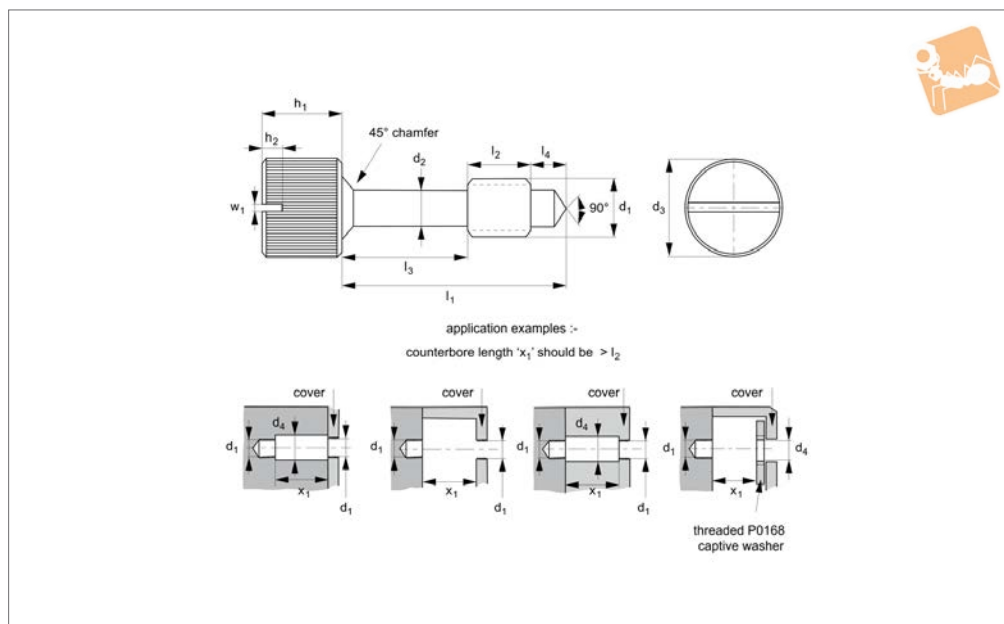
Captive Screws

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃	d ₄ min.	h ₁	h ₂	l ₂ ±0.25	l ₃	l ₄	w ₁
P0159.060-022-A2	M 6	22	4.5	12	6.5	15.0	2.5	8.0	9.0	5.0	2.0
P0159.060-024-A2	M 6	24	4.5	12	6.5	15.0	2.5	8.0	11.0	5.0	2.0
P0159.060-027-A2	M 6	27	4.5	12	6.5	15.0	2.5	8.0	14.0	5.0	2.0
P0159.060-032-A2	M 6	32	4.5	12	6.5	15.0	2.5	8.0	19.0	5.0	2.0
P0159.060-035-A2	M 6	35	4.5	12	6.5	15.0	2.5	8.0	22.0	5.0	2.0
P0159.060-040-A2	M 6	40	4.5	12	6.5	15.0	2.5	8.0	27.0	8.5	2.0
P0159.060-045-A2	M 6	45	4.5	12	6.5	15.0	2.5	8.0	32.0	8.5	2.0
P0159.060-050-A2	M 6	50	4.5	12	6.5	15.0	2.5	8.0	37.0	8.5	2.0

CAPTIVE SCREWS



P0159.A4



Material

Stainless steel (AISI 316, 1.440).
Tensile strength 480 N/mm². Proof stress
min. 200 N/mm², austenitic stainless steel.
Also available on request in steel
(anodised, black oxide or zinc plated),

stainless steel (AISI 303, 1.4305), brass,
aluminium etc.

Technical Notes

Used to comply with the Machinery Direc-
tive 2006/42/EC. Often used with our

captive washers (P0168) or retaining
flanges (P0169 - for sheet metal applica-
tions). The use of our captive washers
should be considered when fitted in panels
with unthreaded holes.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃	d ₄ min.	h ₁	h ₂	l ₂ ±0.25	l ₃	l ₄	w ₁
P0159.030-010-A4	M 3	10	2	6.5	3.5	6.5	2.0	3.2	4.8	2.0	1.2
P0159.030-014-A4	M 3	14	2	6.5	3.5	6.5	2.0	3.2	8.8	2.0	1.2
P0159.030-016-A4	M 3	16	2	6.5	3.5	6.5	2.0	3.2	10.8	2.0	1.2
P0159.030-020-A4	M 3	20	2	6.5	3.5	6.5	2.0	3.2	14.8	2.0	1.2
P0159.030-022-A4	M 3	22	2	6.5	3.5	6.5	2.0	3.2	16.8	2.0	1.2
P0159.030-024-A4	M 3	24	2	6.5	3.5	6.5	2.0	3.2	18.8	2.0	1.2
P0159.030-026-A4	M 3	26	2	6.5	3.5	6.5	2.0	3.2	20.8	2.0	1.2
P0159.031-010-A4	M 3	10	2	8	3.5	8.0	2.0	3.2	4.8	2.0	1.2
P0159.031-014-A4	M 3	14	2	8	3.5	8.0	2.0	3.2	8.8	2.0	1.2
P0159.031-016-A4	M 3	16	2	8	3.5	8.0	2.0	3.2	10.8	2.0	1.2
P0159.031-020-A4	M 3	20	2	8	3.5	8.0	2.0	3.2	14.8	2.0	1.2
P0159.031-022-A4	M 3	22	2	8	3.5	8.0	2.0	3.2	16.8	2.0	1.2
P0159.031-024-A4	M 3	24	2	8	3.5	8.0	2.0	3.2	18.8	2.0	1.2
P0159.040-010-A4	M 4	10	3	8	4.5	8.0	2.0	5.5	2.0	2.5	1.2
P0159.040-014-A4	M 4	14	3	8	4.5	8.0	2.0	5.5	6.0	2.5	1.2
P0159.040-016-A4	M 4	16	3	8	4.5	8.0	2.0	5.5	8.0	2.5	1.2
P0159.040-020-A4	M 4	20	3	8	4.5	8.0	2.0	5.5	12.0	2.5	1.2
P0159.040-022-A4	M 4	22	3	8	4.5	8.0	2.0	5.5	14.0	2.5	1.2
P0159.040-024-A4	M 4	24	3	8	4.5	8.0	2.0	5.5	16.0	2.5	1.2
P0159.040-027-A4	M 4	27	3	8	4.5	8.0	2.0	5.5	19.0	2.5	1.2
P0159.040-032-A4	M 4	32	3	8	4.5	8.0	2.0	5.5	24.0	2.5	1.2
P0159.050-014-A4	M 5	14	3.5	10	5.5	10.0	2.5	6.5	3.5	4.0	1.5
P0159.050-016-A4	M 5	16	3.5	10	5.5	10.0	2.5	6.5	5.5	4.0	1.5
P0159.050-020-A4	M 5	20	3.5	10	5.5	10.0	2.5	6.5	9.5	4.0	1.5
P0159.050-022-A4	M 5	22	3.5	10	5.5	10.0	2.5	6.5	11.5	4.0	1.5
P0159.050-024-A4	M 5	24	3.5	10	5.5	10.0	2.5	6.5	13.5	4.0	1.5
P0159.050-027-A4	M 5	27	3.5	10	5.5	10.0	2.5	6.5	16.5	4.0	1.5
P0159.050-032-A4	M 5	32	3.5	10	5.5	10.0	2.5	6.5	21.5	4.0	1.5
P0159.050-035-A4	M 5	35	3.5	10	5.5	10.0	2.5	6.5	24.5	4.0	1.5
P0159.050-040-A4	M 5	40	3.5	10	5.5	10.0	2.5	6.5	29.5	4.0	1.5
P0159.060-016-A4	M 6	16	4.5	12	6.5	15.0	2.5	8.0	3.0	5.0	2.0
P0159.060-020-A4	M 6	20	4.5	12	6.5	15.0	2.5	8.0	7.0	5.0	2.0



Captive Panel Thumb Screws

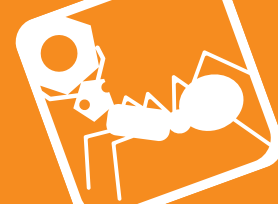
slot drive - 316 stainless



Captive Screws

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃	d ₄ min.	h ₁	h ₂	l ₂ ±0.25	l ₃	l ₄	w ₁
P0159.060-022-A4	M 6	22	4.5	12	6.5	15.0	2.5	8.0	9.0	5.0	2.0
P0159.060-024-A4	M 6	24	4.5	12	6.5	15.0	2.5	8.0	11.0	5.0	2.0
P0159.060-027-A4	M 6	27	4.5	12	6.5	15.0	2.5	8.0	14.0	5.0	2.0
P0159.060-032-A4	M 6	32	4.5	12	6.5	15.0	2.5	8.0	19.0	5.0	2.0
P0159.060-035-A4	M 6	35	4.5	12	6.5	15.0	2.5	8.0	22.0	5.0	2.0
P0159.060-040-A4	M 6	40	4.5	12	6.5	15.0	2.5	8.0	27.0	8.5	2.0
P0159.060-045-A4	M 6	45	4.5	12	6.5	15.0	2.5	8.0	32.0	8.5	2.0
P0159.060-050-A4	M 6	50	4.5	12	6.5	15.0	2.5	8.0	37.0	8.5	2.0

CAPTIVE SCREWS



Automation provides a wide range of captive screws to aid customers to comply with the Machinery Directive 2006/42/EC.

In general there is a requirement that fixings for fixed guards shall remain attached to the guard or machinery when the guard is removed. This was implemented mainly to ensure that as far as possible fasteners are not lost when the guard is removed and the guard is therefore re-installed with all required fixings.

A wide range of captive screws and thumb screws are provided...



P0151
Button Head - Hex
Security and Torx Options



P0154
Socket Head - Cap Screw
Security and Torx Options



P0158
Hexagon Head Bolt



P0159
Captive Panel Screw



P0160
Thin Head Thumb Screws



P0161
Thumb Screws

Installation

To work effectively the captive screw when installed needs to have a space or counterbore between the thread and cover at least equal to the length of the thread.

